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ORIGINAL ARTICLES.

THE AFTER-TREATMENT OF CATARACT-EXTRACTION.

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ON the completion of the operation of extraction of a cataract, the cornea and the conjunctival cul-de-sac should be carefully washed with a warm boric-acid solution, in order that all secretions or coagula may be removed—a solution of mercuric chlorid, 1:8000, may also be used. The eyelids should then be gently closed, and over them placed a small square of old linen, either dry, or covered with oleum petrolei, cold cream, or the like. When the skin is delicate the oiled linen is preferable. Small pads of absorbent cotton are now gently placed over the linen cloths, sufficient in quantity to fill the space between the eyeball and the forehead, so that the pressure of the bandage will be uniform and gentle. This cotton may be medicated or not, as desired by the surgeon. Over this dressing is placed the roller bandage. This is made of fine baby-flannel, if in the winter season, and of cheese-cloth if in the summer. It should be from one and one-half to two inches wide, and about three yards in length, applied in the form of the well-known figure of 8. One begins on the cheek of the same side as the operated eye, then over this around the forehead, over the fellow-eye, and so on until the roller is finished. As a rule, only one pin is required to fasten the bandage, and this of the ordinary kind; I have never seen a bandage properly applied when *one pin* was not sufficient to hold it in position, except in the case of women having long hair. It is my custom in such cases, besides using the pin, as mentioned, to either fasten the bandage by means of a hairpin passed through it, and into the back hair, thus securing it, or put on an old-fashioned nightcap over the bandage, which keeps it firmly in place.

I am fully aware that all I have said as to the bandage is considered by many to-day as unnecessary and behind the times, and that we are only called upon to place bands of water-plaster, or any adhesive strap over the closed eyelids, and all will go well; this, we must admit, may happen; and I have also seen *one case* in which no dressing save a shade was required, and judging from the results, I should commend this plan of after-treatment, although we must all admit that the patient has far more comfort with the bandage. When the bandage is applied, the patient, if in the operating-chair or upon the table, should be gently led to bed, and when in it, allowed to assume any position that is comfortable and easy. The old practice of keeping cataract-patients in bed upon their back for the first twenty-four hours is cruel and uncalled for. The only caution necessary is that the eye be not struck by the patient's hands, the corner of the pillow, etc. The patient may have freedom in micturating, for great inconvenience and annoyance is often caused by the attendant insisting on the use of urinals, "ducks," etc. At the end of twenty-four hours, or earlier, if the patient is restless, a sitting posture may be assumed, the patient being dressed and allowed the use of an easy-chair. Many patients have done badly in the past, from the too rigid observance of the old ideas of after-treatment. Hypostatic congestion of the lungs may be set up by the rigid enforcement of rest on the back.

It is my custom to leave the bandage on both eyes for four days, without change, unless severe pain is experienced, when it is immediately removed; the eyelids are bathed gently with a solution of mercuric chlorid (1:10,000) in order to cleanse them; the lids should then be gently opened, and the affected eye inspected. When no pain occurs after the operation, and all is quiet at the end of four days, I remove the bandage *for the first time*, and inspect the eyes, first having washed them with the mercuric chlorid solution.

Of course, it is taken for granted that the room in which the patient is placed is moderately dark and has no sunlight falling in the apartment. I have, however, no sympathy with those who keep the room absolutely black—in fact, so dark that the blackness can "be felt." Such darkness not only injures the health of the patient, but is also a temptation for the attendants to keep the room untidy, thus favoring germ-development. It is to be hoped that these days will soon pass, and that instead of the *room being made dark*, the patient's eyes only shall be properly shielded during the healing process, by placing a fold of black silk or muslin over the applied bandage.

If, upon inspecting the eye, no undue redness is noticed, and if no evidences of iritis are present, a mydriatic need *not* be used, but should the pupil be

narrow, and the eye-ball quite red, then atropin sulfate, two grains to the ounce of water or oil, should be instilled twice daily. The bandage need not be applied over the unaffected eye after the fourth day, it being sufficient usually to simply shield it by means of a shade. On the eighth day I usually remove the bandage from the affected eye in the morning, and have the eye only shaded during the daytime, reapplying the bandage at night. London-smoke glasses are very useful as protectors, and with a shade over them give ample protection against the strongest light.

If the healing proceeds rightly, the patient may have the freedom of the floor upon which his room is located—that is, in walking to and fro for exercise—and at the end of four weeks he may have lenses adjusted, and go on with his usual life as before.

In an experience in the Mary Fletcher Hospital, at Burlington, Vermont, extending over a period of six years, the average duration of hospital-treatment was ten days, and in New York it has not exceeded fourteen. The shortest period of hospital-treatment was in a male, aged ninety-one, who remained in the hospital *three days*, when he was allowed to return to his home, with the wound thoroughly healed and the eyeball pale. This is one of the shortest periods on record. This patient was seen by my colleague, Dr. Roosa, who remarked that he should have thought three weeks to have elapsed, rather than three days.

In cases in which pain occurs, and in those in which on removing the dressings pus is found on the linen pad in considerable quantity, it can be safely concluded that purulent infection of the wound has taken place. This sign rarely fails. On opening the eyelids the corneal wound will be found infiltrated throughout its entire extent, and perchance pus will be found in the anterior chamber. In these cases the best treatment, and that which I adopt, is, after having carefully washed the eyelids with the mercuric chlorid solution, to cauterize the corneal wound throughout its entire length with the galvano-cautery, thus attempting the destruction of the infecting virus. Hot-water applications, made as hot as can be borne, used every two hours, ten minutes at a time, will greatly relieve the pain, and cut short the suppurative process. Atropin sulfate (gr. ij, aquæ ʒj) used every two hours, keeps the iris out of harm's way, and when combined with cocain greatly mitigates the pain. The reopening of the wound, and the removal by forceps of the exuded matter from the anterior chamber, are of no avail; nor is the injection of Panas' fluid into this space advisable, my experience having been against both of these procedures. The eye should be shielded from light in all such conditions. Purulent infection of the wound, and attendant suppurative iritis, usually result in closure of the pupil and a drawn-up iris—it may even go on to *panophthalmitis*, though this is rare.

The closure of the pupil as the result of this suppurative condition reduces vision to only perception of light. This is best treated by *iridotomy*, a few weeks after all the acute inflammation has subsided. *Iridotomy* may be performed by means of De Wecker's method—that is, by using the specially made stop-keratome, or iridotomy knife, which he has devised, and his iridotomy scissors. The scissors, or at least those that I have seen, are objectionable, in that being forceps-scissors they cut unevenly—that is to say, they bind well at the heel of the instrument, and not well at the extreme point, so that they bruise the iris rather than cut it, having given rise, in several cases seen, to irido-cyclitis. De Wecker's iridotomy may be made single or double, according as the iris is incised once or twice. The operation is done under cocain. The iridotomy knife is introduced in the same manner as for an iridectomy—that is, about one-fourth of an inch from the corneal margin, the instrument being held perpendicularly to the eyeball, and by gentle pressure forced into the corneal tissue and into the anterior chamber until the stop on the knife reaches the cornea, so that in this step of the operation the knife-blade is in the anterior chamber, in front of the iris and occluding membrane, and behind the cornea. The knife is now partially withdrawn, and then its point pushed through the iris tissue or membrane, making thus an opening for the subsequent introduction of the iridotomy scissors. The knife is then gently withdrawn, and the iridotomy scissors, with its blades closed, is introduced through the corneal incision (which is at the superior border) into the anterior chamber. One blade is then passed through the opening made in the iris tissue or membrane (or both), and the other blade being in front, the forceps blades of the scissors are pressed together and the tissue between the blades severed. If there is elasticity to the tissue a fair opening will be immediately noticed. Failing to obtain a sufficient pupil by one incision, the blades may again be placed in another position, and a second incision made, connecting with the first, forming an inverted V, or cordiform pupil. In some rare instances the parts cut will not retract, and we have to resort to removing a piece of the iris tissue. In treating these cases of closure of the pupil after purulent iritis and the like, I much prefer to use the much simpler method, iridotomy, with an ordinary cataract knife, as the procedure is so easy and there is less manipulation and danger in its performance.

The eye cocainized, with speculum and fixation-

forceps in position, securing the eyeball, a sharp, narrow Graefe cataract-knife is thrust through the cornea above and toward the peripheral portion, into the anterior chamber; the point is then thrust through the iris and membrane tissue into the vitreous chamber, and by a rapid downward cut the parts are divided, so that the resulting incision will fall opposite the corneal center as near as may be. The knife is now withdrawn, a small quantity of aqueous escaping, and the wound of entry closing immediately. This simple iridotomy is very effectual, and is to be highly commended.

Failure to secure a sufficient opening by means of the simple iridotomy at the first attempt, we may, after a fortnight, make a second endeavor, when we are likely to succeed.

The after-treatment to be adopted after either of the foregoing forms of iridotomy includes rest, a bandage, and the use of atropin sulfate (gr. ij to aq. ʒj), two drops four times a day—for one week. Usually at the end of this time any reaction that may have occurred will have subsided. As soon as the eye is quiet and all redness has disappeared lenses may be adjusted.

Prolapse of the iris is another accident to be spoken of in the after-treatment of cataract-patients. This is more especially liable to occur in those patients on whom no iridectomy has been performed, or after what is called the "simple operation." Even after the dressings have been adjusted, and during the interval between the operation and the first removal of the bandage this may take place, even in those patients in whom no prolapse occurred at the time of the extraction. This I have frequently seen in the practice of others (I prefer the compound operation); it has been probably caused by some undue exertion on the part of the patient, as coughing or sneezing, which has forced the iris through the unhealed wound.

When this condition is found, gentle efforts should be made to repose the iris into the anterior chamber by means of a spatula, but in my experience this rarely succeeds; eserin instillations are also very strongly advised, but again my experience is also against this method of treatment. Mydriatics and myotics do not act with any degree of satisfaction on the iris when the anterior chamber is leaking. When the iris cannot be replaced or reposed by means of the spatula, I should emphatically advise its excision by iridectomy. The treatment suggested by some, to allow the incarcerated iris to heal in the corneal wound, is, without question, dangerous. In those instances in which the iris becomes entangled in the angles of the corneal incision, when iridectomy has been performed, it is advisable to introduce the iris-forceps and free the entanglement by removing a piece of the iris-tissue. One should then carefully rub the iris back from the wound by means, *e. g.*, of a spoon, by pressure on the cornea over the point of the recent difficulty. This condition is exceedingly rare, if the precaution has been taken after the extraction, of carefully inspecting the wound before applying the dressings.

Prolapse of vitreous is occasionally found when the dressings are removed for the first time—sometimes appearing as a small bead in the center of the corneal incision, and again occupying the whole length of the wound. Healthy vitreous thus presenting in the wound acts as a foreign body and a wedge and prevents the healing of the parts. In the few cases that have come under observation I have found that a change from the former recumbent position and one of quiet repose to that of the erect posture and active exercise has done much to cause the vitreous to recede. By active exercise I mean walking to and fro in the ward or apartment with considerable freedom. Some advise cutting off the protruded vitreous by scissors, and then reapplying the bandage; some even advise introducing a delicate suture in the corneal wound. The first method suggested is preferable *every time*.

Entropion of the lower lid is occasionally the cause of much annoyance in the after-treatment of cataract, as the inverted lid causes irritation and conjunctivitis. The quickest way is to remove an elliptic portion of the skin of the lower lid and then unite the edges, thus producing shortening of the lid; many will not, however, submit to this. Straps of plaster may be placed close to the ciliary edge of the lid, and the lid drawn down by fastening the other extremity of the plaster on the cheek; this is unsatisfactory, as the tears soon cause the plaster to give way. Again, the lid may be held down by the finger and the patient directed to look up; while in this position an application of flexible collodion may be made to the skin of the lid parallel with the ciliary border, and the entire width of the lid. When the collodion is fixed the lid may be replaced, and usually this procedure will prevent the entropion for twelve hours, when the collodion band may be reapplied.

In some cases, in addition to these local measures, the administration of the fluid extract of conium internally has been of service. It seems to have an especial action on the muscles of the eyelids. It may be given in fifteen-drop doses every three or four hours, according to the effect produced.

Delirium after cataract-extraction has long been noticed and was thought by many at first to be due to atropin-poisoning; but this cannot be the fact, as it occurs in patients when no atropin or other drug has been used in the eye. It is not a surgical delirium, as the shock in the operation for cataract

is of no importance. It is probably due to the deprivation of light, and with patients of feeble physical or mental make-up. It not only occurs in those who have been operated upon for cataract, but has been noticed to occur in those confined to darkened chambers for other causes. Should this condition occur, it is evident, therefore, that the removal of the bandage and the use of a shade or colored spectacles are called for.

Striped keratitis is occasionally met with during the healing process, and may show itself in different degrees of intensity from a few bands to a complete opacity of the cornea. It is due to changes in the endothelial layer of the cornea produced by traumatism during the extraction. It usually clears up and the condition gives way in a few weeks; only rarely does a permanent opacity of the cornea remain.

Lachrymal diseases often coexist with senile cataract, and even in those cases in which the precaution has been taken to operate upon the diseased lachrymal passages before the cataract-extraction. Poisonous secretions are prone to linger and form beneath the closed eyelids. Some prefer to put a fine powder of iodoform along the line of the corneal wound; the only objection is the disagreeable odor. It is my habit in all such instances to remove the bandage after the second day, and not to replace it save at night, being satisfied to protect the eye from undue light by means of smoked glasses and a shade. By bathing and washing out the conjunctival cul-de-sac with mercuric chlorid solution, we are sure to prevent infection of the corneal wound by the infectious lachrymal secretions. In other words, these should be treated as open wounds.

Pain a few hours after the extraction of cataract is frequently noticed, and is to be expected in moderate degree, as the natural sensations of the parts are returning, and added to this is the sting and smart of the operation itself; if, however, the pain and discomfort do not speedily subside, it is wiser to remove the dressings, and very gently, without exposing the eye, pull down the lower lid of the operated eye a very little, just enough to allow any pent-up tears to make their escape. I have frequently seen this simple procedure give entire relief to the patient. The dressings should then be reapplied, and such cases may then go on favorably. Neglect to attend to such trifles will often protract the healing process.

Membranous or secondary cataract. In the majority of patients operated upon for the extraction of cataract, membranous or secondary cataract develops, varying in its appearance from a few weeks to several months after. So much so is this the case, that most operators explain to the patient before the extraction, the probable necessity of a secondary operation, or needling, that they may obtain the full acuteness of vision.

This secondary cataract, so called, is simply the thickening or wrinkling of the posterior capsule of the lens—with perhaps some portion of the lacerated anterior capsule curled upon itself. This membrane, being in the line of vision, of course reduces very materially the acuteness.

So long as we continue the present mode of extraction by lacerating the anterior capsule and leaving the capsular mass in the interior of the eye, we must expect membranous cataract. The ideal operation would be to remove the lens in its capsule; this has been done both by design and also by accident. However, as a plan of operating it has been generally abandoned.

In many the secondary cataract shows at the very outset, and even when the healing process is satisfactory. It can be seen best by an oblique light as a gray film stretched across the pupillary region, and by the ophthalmoscopic mirror appears as a cobweb-like material, wrinkled, and sometimes looking like watered silk, the reflex of the fundus showing through it. The density and opaqueness of the capsule cause more or less diminution of sight. Operations for membranous cataract should not be attempted until all signs of inflammation have disappeared from the eyeball, when needling may at any time be performed. The pupil should be fully dilated by a mydriatic, and the eye anesthetized by cocain. A speculum may be used for fixing the eyelids, or they may be held open by the fingers of the operator; some prefer the speculum and fixation forceps—in either instance the eyeball is fixed. A fine cataract-needle is taken and passed through the cornea perpendicularly to its surface, the point entering its tissue near the periphery, and then through and into the membrane, and then by a rotatory motion of the handle the point is made to make a rent in the cobweb-like substance. Care should be taken that no undue traction is made upon the ciliary region, as cyclitis may be set up by excessive manipulation. When the membrane is very delicate and thin, we can determine if the result has been accomplished by having an assistant concentrate light upon the cornea with a strong convex lens. If a sufficient opening has been made by the needle, it may be quickly withdrawn; the wound of entry is insignificant, and closes immediately on the withdrawal of the instrument.

When on the introduction of the needle into the membranous cataract the capsule moves with the needle without tearing, another, second, needle should be introduced on the opposite side of the cornea and the points of the two brought together and then gently separated, causing a rent; or one needle may remain fixed and the other one tear the

membrane in a direction away from it. This procedure will usually cause the most dense and tough membrane to give way.

Occasionally the opaque capsule will move to and fro in the pupil and cause the patient much annoyance, or the opening will get smaller. In such cases it is wise to do an extraction of the capsule, by making an incision at the upper border of the cornea with an iridectomy-knife, and then introduce into the anterior chamber a sharp hook, which is entangled in the membrane and then carefully withdrawn through the corneal incision; delicate scissors should then clip off the capsular mass. If the hook fails to bring the capsule into the wound, then delicate iris-forceps may be introduced into the anterior chamber and the capsule grasped by their blades, and then drawn into the corneal wound and excised by scissors. If the extraction was without iridectomy, care must be taken not to engage the instruments in the iris-tissue; if by chance the iris should prolapse, and it cannot be replaced by a spatula, it is best to excise it.

The treatment after either of these modes of discission, or extraction of the capsule, includes rest, a bandage for forty-eight hours, and atropin-instillations three or four times a day. If much pain results from these operations, the use of hot fomentations will usually give relief; if not, cocain may be added to the atropin solution.

Cystoid cicatrix occasionally occurs after extraction of cataract, especially if care has not been taken to have the angles of the wound free of iris-tissue at the time of the extraction; it may also occur in those when the healing process has been protracted, and thinning of the sclero-corneal junction has taken place in consequence. It is best to remedy this defect at once, for if neglected, it is likely to lead to irido-cyclitis. Iridectomy usually gives relief in these cases.

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THE DIFFERENTIAL DIAGNOSIS AND TREATMENT OF SUPPURATION OF THE ACCESSORY CAVITIES OF THE NOSE.

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IT is the purpose of this paper to limit it to the more characteristic subjective and objective symptoms which enable us to differentiate between the affected areas and suppurative foci, together with a brief consideration of their surgical treatment.

Although it is only a comparatively short time since this subject has engaged the attention of rhinologists, yet our literature abounds with reports and communications on this subject, especially on empyema of the maxillary sinus, which latter has received the greater attention because it is more easily accessible and formerly was more often diagnosticated by accident. At the present time, while the recognition of suppurative disease of one or the other of the accessory cavities is comparatively an easy matter, the determination of the source of the purulent secretion or its focal point is often involved in considerable obscurity.

Most of the so-called characteristic symptoms are more or less common to disease of all of the accessory cavities, viz.: (*a*) Suppuration; (*b*) Neuroses, manifested by cephalalgia, neuralgia, and psychic phenomena; (*c*) Ocular disturbances.

a. SUPPURATION.—We have a purulent discharge (except in the latent form of the disease and when the normal outlet is obstructed) by way of the anterior and posterior nares, dependent upon concomitant obstructive lesions in the nasal fossæ involving the anterior or the posterior nasal openings; it is more or less periodic in its appearance, increased in the morning or on rising. The odor of the purulent discharge may be negative, or there may be a decided fetor, dependent upon some peculiarity of the pus, due to retention, decomposition, or admixture with retained secretions. We may have ozena, which term, to prevent confusion, should be restricted to fetor of the nasal secretions without specifying any particular pathologic condition.

Theoretically, the pus from the maxillary, frontal, and anterior ethmoidal sinuses should make its appearance in the middle meatus and nasal fossæ, but in the presence of an obstructive lesion involving the anterior end of the inferior turbinal, the direction of the purulent discharge would be toward the posterior nasal openings, and simulate disease of the posterior ethmoidal cells and sphenoidal sinus—the so-called Tornwaldt's disease.

Fränkel[1] has called attention to an increased flow of pus on placing the head well forward and downward for some moments as being characteristic of antral empyema. This sign cannot be regarded as a positive indication of the source of the purulent discharge, as it may occur in suppuration of the anterior ethmoidal cells, although, by preliminary cleansing of the middle meatus, and making the test in the morning, this would undoubtedly be quite a reliable differential sign. Pus from the ethmoidal and frontal sinuses is usually not so abundant as in antral empyema; furthermore, in ethmoidal suppuration, the quality of the pus is usually more inspissated and tends to caseation and the formation of crusts, which is seldom a feature in antral disease.

Posterior rhinoscopy often discloses caseous pus in the superior meatus, with maceration of the mucosa covering the middle turbinal, which is quite

characteristic of suppuration of the posterior ethmoidal and sphenoidal sinuses. A localization of the suppurating foci in this region is rarely possible by anterior rhinoscopy, while posterior rhinoscopy will often enable us to differentiate between involvement of the posterior ethmoidal and sphenoidal sinuses and the deep fissures of the pharyngeal tonsil.

b. NEUROSES.—Cephalalgia is one of the most constant of symptoms, and is common to all diseases of the accessory cavities when there is suppuration. According to Schäffer,[2] Killian,[3] and Grünwald,[4] it is quite impossible to diagnosticate the focus of the disease by localization of the headache. Grünwald claims to have seen frontal headache very common in antral disease, and comments on the absence of facial neuralgia in his cases, though most authorities consider this a characteristic sign of antral disease.

In disease of the frontal sinus there is usually supraorbital neuralgia, intermittent in character, and aggravated by mental effort and indulgence in alcoholic liquors. In ethmoidal disease we have orbital neuralgia, which may be deep-seated and diffuse, while in sphenoidal disease we may have deep-seated cephalalgia of a very distressing character, radiating through the side of the face and involving all the branches of the trigeminus, causing dental, infraorbital, and supraorbital neuralgia.

Rouge[5] cites a case in which a diagnosis of antral empyema was made on account of a severe infraorbital and dental neuralgia. The autopsy disclosed empyema of the sphenoidal sinus, with caries of the superior wall, perforation, and subdural abscess, while the maxillary sinus was perfectly healthy.

So constant is this symptom of headache in disease of the accessory sinuses that it is in every case advisable to carefully examine the nasal and accessory cavities, even if the patient deny any knowledge of intra-nasal disease—a fact well known to the clinician. It is very difficult, sometimes even impossible, to distinguish by subjective and objective study of a case whether the symptom in question be of a reflex nature or whether caused by focal irritation due to pressure from distention of the sinus-walls, either with or without rupture, or by inflammatory involvement of contiguous structures, caries, and necrosis.

Psychic symptoms are frequently encountered, as manifested by insomnia, mental hebetude or depression, even by melancholia with suicidal impulse. Grünwald[6] relates a case of bilateral empyema of the ethmoidal and sphenoidal sinuses in which there was but little complaint of headache; but the patient suffered from continuous pressure on the vertex, as if pressed upon by a hand, with inability to think or maintain a conversation on account of forgetfulness. This patient also labored under the delusion that he stood about ten feet away from the person in his immediate vicinity, and his own voice appeared as if coming from a distance. He was also affected with melancholia and periodic impulses to suicide.

c. OCULAR DISTURBANCES may be due to disease of any one or to a combination of diseases of two or more of the accessory cavities, caused by distention, a bulging of the sinus-walls into the orbital cavity, with or without rupture or discharge of purulent contents into the orbital cavity, and giving rise to exophthalmos, amblyopia, diplopia, strabismus, contraction of the visual field, etc. Although exophthalmos may occur in connection with orbital abscess, from rupture of the orbital walls of the adjacent sinuses, it is most frequent in ethmoidal suppuration, in which case the eyeball is usually crowded outward and well forward. When the source of the orbital abscess is the frontal sinus the eyeball is crowded outward rather than forward. On account of the proximity of the sphenoidal sinus to the optic foramen and sphenoidal fissure, we may have serious involvement of the optic nerves and motor nerves of the eyeball, with more or less impairment of vision as a result of pressure or inflammatory involvement of contiguous structures.

Berger[7] calls attention to a peculiar feature in connection with amblyopia, which he claims is diagnostic of disease of the sphenoidal sinus, namely, that the peripheral field of vision is invaded before the central field is affected. He would explain this by the fact that the central fibers of the optic nerve are distributed to the outer portions of the retina.

Let me in this connection call attention to the close interdependence of ocular disturbances and intra-nasal lesions, which fact would seem to make their associated study and treatment desirable and reasonable, and clinically of advantage to both patient and surgeon.

As, in a given case of suppurative disease of the nose or accessory cavities, the foregoing facts make it quite doubtful that we can determine with certainty the focus of suppuration, we are forced to resort to additional diagnostic aids, of which I will only notice, first, the probe; second, exploratory puncture, and third, translumination.

Jurasz[8] claims to have succeeded in determining the presence of pus in the frontal sinus by the use of the *probe*. Practically, it is a most difficult procedure, except when the normal opening has been enlarged by caries or necrosis. Grünwald[9] says that he has succeeded but once in many cases in successfully probing the infundibulum, but makes the encouraging statement that the ethmoidal and sphenoidal sinuses can be successfully explored. He places the utmost reliance on the probe in deter-

mining the focal point of disease in the ethmoid, and says that without the probe it is impossible to make a negative diagnosis, while with it we are enabled to examine all the hidden spaces of the middle and superior meatus. The distal end of the probe should be bent at an obtuse angle to explore the medial as well as the lateral and under surface of the ethmoidal turbinal. In ethmoidal caries or necrosis, on sounding with the probe the distal end will penetrate a small opening with roughened edges, and find itself in a cavity which is apparently smooth. This may be due to granulation-tissue covering carious bone, and can be determined by the use of a small curet of corresponding curvature. The normal muco-periosteum in this region is closely adherent and of sufficient firmness to resist the curet if used with delicacy. Not so, however, with granulation-tissue, which being less firm yields easily to the curet, and we are thus enabled to feel denuded bone. Another point that may prove of diagnostic importance is the fact that a carious spot is usually very sensitive to the probe and consequently quite painful, while the contrary is true when the muco-periosteum is healthy. Sounding of the sphenoidal sinus, although not so easy as that of the ethmoidal cells, is readily accomplished if one bears in mind the topography of the nasal fossæ. The probe is passed between the septum and the middle turbinal, forward and well upward, when it should be felt to enter through an opening into a space in which the distal end is freely movable. The success of the maneuver depends upon a tolerably straight septum and an absence of marked hyperplasia of the ethmoidal turbinal.

EXPLORATORY PUNCTURE.—In antral empyema there is but one sure and reliable diagnostic sign, viz., ocular demonstration of the existence of pus by *exploratory puncture*, with or without irrigation. In spite of the fact that the presence of lamina and septa more or less complete may give negative results when pus is pent up under such anomalous conditions, it, however, occurs so seldom that we may practically be assured of its absence. Zuckerkandl reported the result of 300 autopsies, in which he found incomplete septa in seven, and in only one was there found an accessory space, which, however, communicated with the main cavity by an opening of the size of a hemp-seed.

TRANSLUMINATION.—The method of electric illumination introduced by Voltolini, and variously modified, was until very recently regarded as an important diagnostic aid. Like many, it has proved only of complementary value. However, it is a procedure that is absolutely unobjectionable to the patient; has some value as a positive and very much more as a negative test, and is still in favor with rhinologists as a preliminary step to methods of exploratory puncture or surgical procedures.

The diagnostic value of translumination depends upon zones of illumination and shadows or umbræ. These are modified by anomalous conformation and thickness of the osseous walls and partitions, enlarged turbinals and pathologic conditions of the mucosa of the sinuses, with or without the presence of pus. Although translumination has proved a disappointment as well as an embarrassment to many, it is a useful aid, not only in the diagnosis, but also in the prognosis of antral and ethmoidal disease.

Of late I have followed the method of Renault[11] by placing an incandescent lamp of sufficient illuminating power in the mouth laterally, below the lower wall of the antrum (not centrally on the dorsum of the tongue as usually practised), when, under normal conditions, on each side, at the level of the nasal bones will be seen a clear zone of illumination, irregularly oval, less bright than the corresponding suborbital region, but clearly distinct from the surrounding darker parts. We also get an illumination of the pupil, known as the pupillary reflex of Davidsohn[12]. Garel[13] has called attention to a new sign, viz., "Absence of luminous perception on the affected side," which has proved of great value. According as the individual has a narrow nose, small maxillary sinuses, a high arched palate, or tumefaction of the turbinals, the value of the signs of Davidsohn and Garel are more or less vitiated. However, the presence of an umbra in the ethmoidal region, with a purulent discharge from the nose and translucency of the corresponding cheek, is a diagnostic sign of great value, and would point to disease of the ethmoid.

I wish incidentally to call attention to the fact that a dark-room is not absolutely necessary for successful experimentation with this method. A dark hood of any design, or a dark cloth, such as is used by the photographer, placed over the head of the patient and that of the observer, although not so esthetic as the dark-room, is quite as satisfactory.

It is in the cases of associated suppuration of two or more of the accessory cavities that we meet with the greatest difficulties in making a differential diagnosis, especially when this occurs on the same side.

It is necessary, therefore, to determine, first, the foci of suppuration, and second, whether they are primary or secondary infections. Killian[14] and Grünwald[15] report cases of associated empyema of the maxillary, frontal and ethmoidal sinuses with antral suppuration, in which the purulent discharge from the antral cavity persisted until free exit to the pus in the frontal and ethmoidal sinuses was established, which was followed by spontaneous cure of the antral empyema.

TREATMENT.—When ordinary treatment has failed to establish free exit for the secretions through the normal openings of the accessory sinuses into the nasal cavity, and the retention of secretion or the presence of pus has been determined or is strongly suspected, it becomes necessary to establish the patency of the normal openings by the probe, the air-douche, etc., or to create an artificial opening for the free exit of pus and to secure efficient drainage.

When disease occurs in connection with hypertrophy or hyperplasia of the turbinals, exostoses, polyps, other neoplasms, or carious teeth, it is of the first importance to remove these lesions as far as possible by the proper treatment, so as to permit of free access to the affected parts. I am of the opinion that the more radical and thorough surgical measures are far more gratifying in their results to both patient and surgeon than the tentative and too conservative treatment so often pursued. Suppuration of the accessory cavities runs a decidedly chronic course, and shows little tendency to spontaneous cure. While the disease is confined to the sinuses themselves there is no serious danger to life, but when it extends to the cranial or orbital cavities the prognosis becomes correspondingly grave. Therefore, the treatment must be not only curative or palliative, but prophylactic. In most cases of suppurative disease of the accessory cavities, the amelioration from proper surgical treatment is rapid, although the cure may be slow, owing to the chronicity of the disease and the extent of the involvement of contiguous structures.

From a critical analysis of the literature pertaining to this subject and clinical experience in a few cases which the limit of time forbids my reporting in detail, I have formulated the following conclusions:

1. When the presence of pus or the retention of secretions has been diagnosticated, the indications are to secure free exit of the same and efficient drainage.

2. In antral suppuration the opening should be made with chisel and mallet through the canine fossa, according to the method of Küster[17] or that of Robertson[18], and of sufficient size to permit exploration with the little finger and the small incandescent lamps; if necessary, this is to be followed by curettage and the dry method of Krause-Friedländer.[19]

3. In sphenoidal suppuration the method of Schäffer[20] is to be commended, viz., enlargement of the normal openings by breaking through the anterior wall of the sinus with the curet, and by thorough curettage.

4. In frontal suppuration the choice of operative procedure depends upon the indications: if there is bulging of the inner and upper wall of the orbit that site should be selected for the artificial opening. The point usually selected for the latent form is immediately below the superciliary ridge, and near the bridge of the nose; the opening should be of sufficient size to give free access to the sinus, for the purpose of exploration, thorough drainage, and reëstablishing communication with the nasal cavity.

5. In suppuration of the ethmoidal cells, guided by the indications of the probe as to the presence of caries and pus, we should proceed to open up all suppurative foci by means of the snare, hot or cold, the nasal cutting-forceps, the curet, trephine, gouge, or the galvano-cautery knife.

6. A thorough knowledge of the topography of the ethmoid, its anatomic relation to the cranial and orbital cavities, together with a high degree of manipulative dexterity, will enable one to proceed with the assurance and rapidity that is so desirable in view of the free and annoying hemorrhage that is usual in intra-nasal surgery.

REFERENCES.

1. *Fränkel:* Berliner klin. Wochenschr., 1877, No. 16, p. 273.
2. *Schäffer:* Therapeut. Monatshefte., 1890, p. 477.
3. *Killian:* Münch. med. Wochenschr., 1892.
4. *Grünwald:* Lehre v. den Naseneiterungen, etc., 1893, p. 62.
5. *Rouge:* Berger and Tyrman, op. cit., p. 23.
6. *Grünwald:* Op. cit., p. 66.
7. *Berger:* Revue mens. de Laryngol., July, 1888, p. 400.
8. *Jurasz:* Berlin klin. Wochenschr., 1887, p. 3.
9. *Grünwald:* Op. cit., p. 154.
10. *Grünwald:* Op. cit., p. 116.
11. *Renault:* Journ. Laryngol. and Otol., vol. vii, p. 155.
12. *Davidsohn:* Archives intern. de Laryngol., 92, p. 264.
13. *Garel:* Journ. of Laryngol., Rhinol., and Otol., 1892, p. 502.
14. *Killian:* Münch. med. Wochenschr., 1892, p. 40.
15. *Grünwald:* Op. cit., p. 159.
16. *MacDonald:* Lancet, June, 1891, p. 20.
17. *Küster:* Deutsch. med. Wochenschr., 1889, p. 12.
18. *Robertson:* Journ. of Laryngol., Rhinol., and Otol., 1892, p. 81.
19. *Krause-Friedländer:* Berl. klin. Wochenschr., 1889, p. 37.

705 VENETIAN BUILDING.

A SERIES OF WOOLS FOR THE READY DETECTION OF "COLOR-BLINDNESS."[1]

BY CHARLES A. OLIVER, M.D.,

ONE OF THE ATTENDING SURGEONS TO WILLS EYE HOSPITAL; ONE OF THE OPHTHALMIC SURGEONS TO THE PRESBYTERIAN HOSPITAL; CONSULTING OPHTHALMIC SURGEON TO ST. AGNES' HOSPITAL, PHILADELPHIA, ETC.

IT has long been known—ever since the time of Wilson—that of the three methods for the quick and ready determination of subnormal color-perception—direct comparison of pigment-colors, direct comparison of spectral colors, and the study of subjective after-color, complementary color—the first is the best, the most convenient, and

[1] Read before the meeting of the American Ophthalmological Society, held at New London, Conn., July, 1893.

the most accurate. The cheapest plan, and the one that is freest from error, is that of Holmgren (really Wilson), the candidate expressing his color-defect by the handling of a series of inexpensive wools. It is free from the objections of fixed tests, such as the color-tables of Daae, the yarn-covered spools of Schenkl, the pseudo-isochromatic wools of Donders, the embroidery patterns of Cohn, and the stick of Thomson. It avoids the errors of these plans, inherent in the fact that here the colors, which are mere arbitrary choices of the deviser, not only fail to express any definite percentages of lowered color-vision, and thus permit many candidates to escape by reason of the confusion-wool not being equal to the exact amount of the color-error, but also greatly curtail any choice to be taken by the candidate, by reason of the process of fixation upon tables, spools, sticks, etc. Further, it escapes the faults of a fixed method of nomenclature, as, for instance, the odd and even numbering in Thomson's stick, where the one salient point of the test is liable to become known, and the test thus rendered practically worthless.

To remedy these defects amongst the only proper and legitimate class of color-tests, I brought before this Society, in 1887, a series of loose wools, which were intended not only to avoid any mistakes that might arise from imperfect material as to color, dye, its character, and the choice of instrumentation, but to give to any instructed (even though lay) examiner a definite and intelligible grading of the exact amount and character of any lowering of the color-sense—a grading that could be compared and contrasted with any past or future examinations and could be understood throughout the ophthalmic world.

To accomplish this purpose I made the following modifications of the Holmgren series:

I. Five individual tests were used—pure green, pure red, rose, pure blue, and pure yellow. In spite of any theoretic prejudices, the last two colors were added because they had served through a long individual experience as most useful tests in the detection of extremely slight and almost imperceptible color-changes.

II. Loose and separate skeins of wools were employed. This, the fundamental principle of the value of the Wilson and Holmgren method, can be well understood when it is considered that here no discoverable plan is given to the candidate—he merely having a mass of color-matches from which to take his own choice.

III. The colors were made of equal relative intensity. Here rests one of the greatest claims for the employment of this individual test. Nothing that is arbitrary was placed in the color-series. Each skein had a definitely related percentage of one or two of the principal test-colors, thus allowing the plan to resolve itself into the question of color-matching alone.

IV. The value of the color used in each test-skein was expressed. The unit of color, or equivalent, and its relation with every other skein in the test, was given by a system of metallic bangles which was made incomprehensible to all but the scientifically initiated.

V. The set was so constructed that it could be employed by any educated layman. This was accomplished by the system of nomenclature on the bangles, which, although unknown in their scientific value and signification by the lay-examiner in any case requiring such service, could be fully understood by any expert to whom the case was given for after-decision. This was done by reference to the key to the test accompanying each test. This method embraces the ingenious plan of Thomson. Should the case not necessitate such intermediacy, the expert examiner would know in a moment, by reference to his registry blank, the true value of the color-sense laid before him for examination.

VI. The test was so constructed that passing color-changes could be preserved and permanently kept for future comparison. This was done by the wool-naming, and was of value in furnishing means by which more accurate study of disease could be made, better notions of prognosis given, and more useful plans of therapy applied.

VII. The test was so constructed that written and verbal expressions of the character and the amount of subnormal color-perception could be given. This avoided the use of the vague terms designative of lowered color-perception, and placed the system of naming upon a sound and scientific basis, as in acuity of vision, range of accommodation, etc.

VIII. The wools were made of one grade of manufacture, and were dyed with vegetable material. This avoided any errors that might arise from supplemental use of touch, rendered the tints more lasting to light-exposure, and avoided any danger from detection of tint by odor of the employed dye.

IX. A black surface was used in testing. This was done so as to avoid as much as possible the simultaneous and successive contrasts that are so likely to form in irritated and degenerated visual organs.

After several years' trial I found that I could dispense with all but the five principal test-skeins, five pure match-skeins, and eighteen confusion-skeins of relative equal value to the pure match-skeins, thus reducing the test to an extremely simplified, though scientifically correct, process; which could be used at will in a few seconds' time by any educated

layman, or by the expert himself; a plan that was as sure to be understood in ophthalmic writings, and as certain in its answers of the ever-varying conditions of individual cases as any other methods of precision given to the scientific and busy physician.

For these reasons I have thought it well to introduce the new and simplified series,[1] believing that it is of practical advantage to every working ophthalmologist or ophthalmic expert in railway and marine service, and to every neurologist who finds it necessary to obtain a most delicate answer to the amount and degree of disturbance of sensory action in the visual apparatus.

CLINICAL MEMORANDA.

CLEFT PALATE, BOTH HARD AND SOFT, AND HARE-LIP.[2]

BY W. S. FORBES, M.D.,
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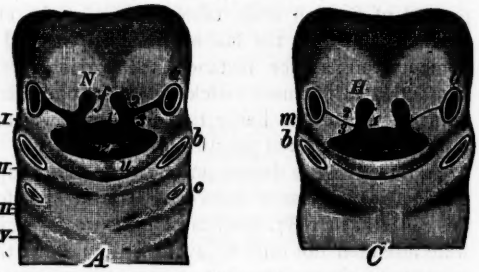
THE affections named in the title are congenital. At the end of the third week in the development of a human fetus three deep pits, lined by a stratum of columnar epiblastic cells, appear on each side of the head, and, ultimately coming in contact with outgrowths from the developing brain, give rise to organs of special sense. One of these, the posterior, becomes the auditory vesicle; another, the middle, becomes the optic vesicle; and the third, the anterior one, placed near the median line, becomes the nasal vesicle. It is to this last that I wish to call attention.

The nasal vesicle, placed in front of the auditory and optic vesicles and close to the middle line, is connected by furrows with a deep invagination of epiblast, pushed in on the middle line, known as the stomodeum. At the fourth week of fetal life, the border of the head that forms the upper edge of the oral invagination below the anterior brain-vesicle, presents five marginal facial processes (Fig. 1, *A*.). The central one of these processes is the single fronto-nasal process (*f*, Fig. 1, *A*), which is separated on each side from the lateral nasal process (*2*, Fig. 1) by a nasal invagination. External to the lateral nasal process is the ocular invagination, at the outer and inferior border of which an outgrowth from the mandibular fold, the maxillary process, grows forward, separating the ocular invagination from the stomodeum. As it extends, its inner edge touches and coalesces with the outer side of the fronto-nasal process, making thereby a continuous upper lip for the aperture of the mouth. If from any cause the coalescence of the maxillary process with the fronto-nasal process is arrested and does not take place the deformity known as hare-lip is the result.

The union of the fronto-nasal and lateral nasal processes internally completes the edge of the anterior opening of the nostrils, while the thickening of these processes forms the nose. The lower edge of the oral invagination is made by the mandibular fold, which lies in front of the first visceral cleft, and in which the lower jaw, or mandible, is subsequently formed. These partitions between the nasal invagination and the mouth are at first superficial, but an ingrowing process from the maxillary process on each side eventually extends inward like a shelf to meet its fellow of the opposite side medially, thereby completing the roof of the mouth. At the same time the vertical septum, which grows down from above, separates the nasal fossæ and forms the nasal septum. The posterior extension of the middle nasal process, which takes part in the formation of the palate, becomes the premaxillary process.

FIG. 1.



Scheme of formation of the face and arrest of its development. (From LANDOIS.)

A, First appearance of the face; *I, II, III, IV*, the four visceral arches; *f*, fronto-nasal process; *N*, nasal orifice; *1*, inner; *2*, outer nasal process; *3*, superior maxillary process; *u*, inferior maxillary process; *b, c*, first and second visceral clefts; *a*, eye; *z*, tongue.

C, Arrest of the development, constituting oro-nasal cleft.

H, nasal orifice; *1*, inner, *2*, outer nasal process; *3*, superior maxillary process; *a*, eye.

Failure of union of the processes at the middle line taking place, or their development being arrested, the deformity known as cleft palate follows.

The failure of this median union of these processes may be partial or complete. Thus, the want of median union of the maxillary processes posteriorly only will produce a cleft of the soft palate; or a failure to unite may extend further, thus producing cleft in the hard as well as in the soft palate; or the failure in development may be complete and no union exist between the lateral nasal process of one side and the proximal surface of the fronto-nasal process, thereby producing a continuous cleft through the lip and through hard and soft palate. When the failure to develop is on both sides of the fronto-nasal process, then we have a double hare-lip and a V-shaped fissure through the vault of the mouth, and between the bifurcations of the V we find the undeveloped premaxillary nuclei, in which the incisor teeth are in time developed.

The failure in development and in attachment on both sides of the fronto-nasal process produces a hideous deformity. The patient I now bring before you presents such a condition.

C. A., a farmer's boy, nineteen years of age, coming

[1] E. B. Meyrowitz & Co., of 104 East Twenty-third Street, New York City, have kindly undertaken the manufacture of these tests, and have a most admirable, convenient, and cheap series ready for distribution.

[2] Read before the College of Physicians, Philadelphia, April 5, 1893.

from Virginia, presented himself to me in January, 1892; he was in reasonably good health; he had a double hare-lip, and a wide cleft in the soft and hard palate. The cleft bifurcated anteriorly, each bifurcation following the maxillo-premaxillary sutures. The vomer was greatly developed. The lower anterior marginal thickening coalesced with the premaxillary bones, which were pushed forward and upward. These parts were covered by a dense mass of vascular connective tissue.

FIG. 2.

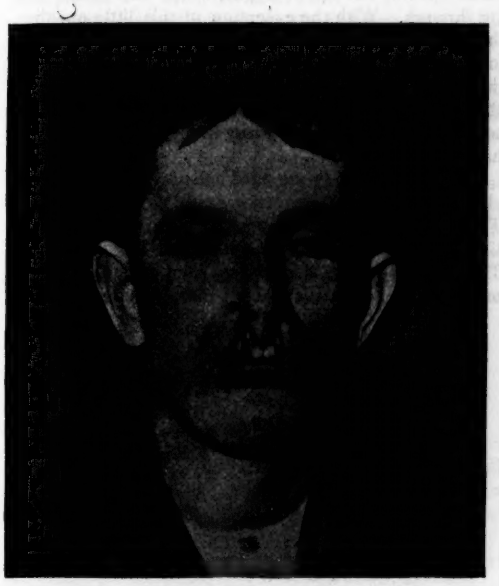


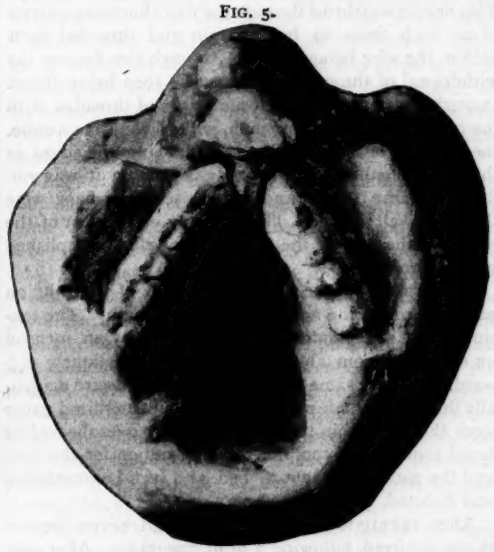
FIG. 3.

The skin did not cover the anterior surface of the nasal septum, but projected forward, appearing like a well-developed nipple. There was an opening into each maxillary antrum. The entire lateral bony walls of the oro-nasal cavity were covered with a thick and very vascular integument, mucous membrane, connective tissue, and periosteum. The excessive vascularity in the whole field of operation was made very manifest in each operative procedure.

After several careful examinations, and after casts, diagrams, and photographs had been taken, I determined to first freshen the margin of the soft palate and then take lateral flaps containing periosteum from the lateral walls and suture these flaps together in the middle line as far forward as the maxillo-premaxillary sutures, leaving the treatment of the double hare-lip and the premaxillary bones and the greatly developed vomer for a future occasion. The antero-posterior diameter of the oral cavity was observed to be greater than usual. On the right side, the canine tooth, the two bicuspids, and two

FIG. 4.

FIG. 5.



molars were well developed, but they were placed in a straight line from before backward and outward. On the left side the second molar was absent, but the teeth on the left, like those on the right side, ranged in a straight line backward and outward, the two lines forming a V-shaped figure from before backward. The premaxillary bones, with the incisor teeth, were developed much in front of the apex of the V-shaped dental figure. Each half of the bifid uvula was larger than a normal uvula. The tensor palati and the levator palati muscles appeared to act with considerable force. The anterior pillars (palato-glossi) and the posterior pillars (palato-pharyngei) appeared to be subnormal.

A solution of cocaine was injected into the soft palate and into the parts covering the hard palate of each side of the fissure. The half-uvula of one side was seized with a long rat-tooth forceps and transfixed with a small double-edged, spear-shaped bistoury, and the incision carried up to a little nodule of bone, representing the undeveloped horizontal process of the palatine bone. A similar incision was then made upon the opposite side. Then, with a rectangular hoe-shaped knife, an incision was made along the lateral wall, and on a lateral ridge representing the undeveloped palatine process of the maxillary bone, and carried as far forward as the anterior edge of the nasal process of the maxillary bone and its juncture with the ala of the nose. The soft parts, including the periosteum, were brought down nearly to the margin of the alveolar process, thus leaving the flap attached by a large and broad pedicle. The same procedure was carried out on the opposite side. The hemorrhage was very considerable, but was arrested by ice and pressure. It required nine silver-wire sutures to hold the margins of these flaps in proper apposition in the middle line. The placing of the sutures was accomplished by means of a long needle with an eye at one end. This needle was thrust through the flap about one-quarter of an inch from its free margin and threaded from within, the wire being brought through the flap on the withdrawal of the needle; the needle then being thrust through the flap of the opposite side and threaded with the other end of the wire; then, withdrawing the needle, the wire was left in position. On drawing the edges of the flaps together a shot having a hole in it was run down the wire suture and compressed; the flaps were thus held well together. The making of the floor of the nose and the roof of the mouth was well accomplished by this procedure.

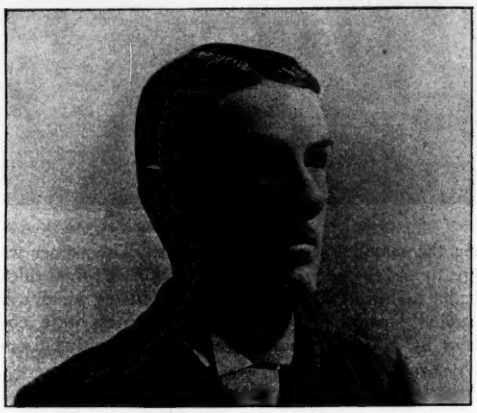
On washing out the nasal fossæ, none of the solution passed through the nasal floor to the mouth. The tension of the soft palate was now relieved by an incision on each side from above downward and obliquely outward, and at the same time from before backward diagonally through the soft palate. Pledgets of sterilized gauze were then placed in the nose and cotton over the middle facial zone. This completed the operation for the time and the patient was put to bed, and rectal alimentation was directed, with an anodyne.

After twenty-four hours had elapsed severe hemorrhage occurred, following a fit of coughing. After considerable difficulty this was arrestsd, and although the prostration was pronounced, the patient reacted rapidly.

On the fourth day three of the anterior sutures were removed and union was found to be complete. On the sixth day the three posterior sutures were removed and here union was also found to be complete. On the seventh day the remaining three sutures were taken out. It was found that one of them had cut out. It was from this spot that the bleeding had taken place. There was found to be an opening the size of a pea, where the suture had cut through. With the exception of this little opening, the union was perfect thoughout and the man was much improved. He went home in March. On his return, the last of January of this year, nearly ten months after the first operation, the parts were found to be well consolidated, and the small opening in the roof of his mouth had contracted a little.

While the fissure in the hard and soft palate was now closed, the facial deformity was still as great as ever. The second operation was performed early in February. Cocaine was injected into each lateral half of the lip. The parts were then dissected up from their attachment on each side to the maxillary bones, including the alæ

FIG. 6.



of the nose. It was found, however, that these flaps could not be made to cover the premaxillary bones; nor could these bones be forced back into the narrow cleft between the maxillary bones and into the narrow apex of the V-shaped figure already spoken of. With my bone-forceps the premaxillary bones and that portion of the vomer in front of the gap were removed. The anterior margin of the septum that I had made some months before was now freshened, and the canine teeth having been extracted, a rectangular flap from each side, having a broad pedicle carrying the periosteum, was raised and made to meet in the middle line in front of the lower angle of the vomer. These flaps were held to the vomer and in apposition to each other by animal sutures. The lip-flaps were now brought together in the middle line, and the parts were held in apposition by three steel pins.

The first pin was inserted into the cheek about a quarter of an inch external to the left ala nasi and passed nearly through the flap. It was then carried directly through the bony nasal septum and made to enter the right flap and reappear on the right cheek about a quarter of an inch external to the right ala nasi.

This pin held the flaps well together and in excellent apposition. A second and a third pin were properly passed through the lip-flaps. A well-sterilized silk ligature was now thrown around each individual pin in the manner of a figure-of 8, and a sterilized gauze dressing was placed over the naso-facial zone.

The pins were withdrawn on the fifth day, leaving the ligatures *in situ* for the time being. On the seventh day when all the dressing was removed, the parts were found entirely united. A fortnight after the operation a dental plate was adjusted, replacing the removed incisor teeth. A month after the last operation the man gave us the photograph which is here reproduced.

I am greatly indebted to Dr. Clarence A. Weaver, one of the resident physicians in Jefferson Medical College Hospital, for the photographs kindly furnished; and to Dr. E. I. Keffer for the preparation of the plaster cast from which one of the illustrations has been made.

1704 WALNUT STREET.

TWO CASES OF PNEUMONIA PRESENTING UNUSUAL FEATURES.[1]

BY LIEUT. A. E. BRADLEY,
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CASE I. *Pleuro-pneumonia of the lower lobe of the right lung, complicated with diaphragmatic empyema; convalescence established by expectoration of pus; cure complete.*—A. W., musician, Company C, Twelfth Infantry, after drinking heavily, was found lying in his bunk, apparently very ill, on the afternoon of March 10, 1893. Examination showed him to be in a semi-stupor from drink, and at the same time suffering severe pleuritic pain. He was at once removed to the hospital; the respirations were catching, jerky, and rapid; auscultation showed extensive friction-sounds over the base of the right lung, and faint crepitant râles; on percussion, a tympanitic quality of resonance was noted; tactile and vocal fremitus were apparently normal. The tongue was heavily coated. He was given 10 grains of calomel and 5 grains of soda, a broad bandage was firmly applied to the chest, and at night a hypodermatic injection of a quarter-grain of morphin was given. On the following morning his temperature had risen to 101.2°; the pain continued and the crepitant râles were more distinct. Three grains of quinin three times a day, and a stimulating, nourishing diet, were ordered. The evening temperature mounted to 101.8°.

On the following morning there was dulness on percussion over the whole lower lobe of the right lung, and rusty-colored, tenacious sputa caused much troublesome cough. Auscultation showed only faint, distant, bronchial breathing, but there was marked vocal and tactile fremitus. The tenacious mucus, no doubt, blocked the bronchial tubes and permitted little or no air to enter. In view of the coëxisting pleurisy, early recognized, the condition simulated to some extent a pleuritic effusion, but the fremitus pointed to little or no fluid in the pleural sac. The treatment was now ammonium carbonate, quinin, trincture of digitalis, and whiskey in such quantities and as frequently as the symptoms from time to time indicated.

On the morning of the 17th the temperature touched normal and convalescence seemed at hand, but physical examination still showed unsatisfactory conditions at the lower portion of the right chest. The chest-walls bulged, dulness on percussion existed, the respiratory sounds were distant, but there were no râles. It again seemed as if fluid were present, but exploratory punctures with hypodermatic and aspirating needles failed to give evidence of fluid. The general condition was excellent and the appetite good. On the 21st the temperature again began to indicate fever, and for the next two weeks it ranged from 100° to 103.2°. The presence of pus was suspected, and repeated attempts were made to locate it by means of exploratory punctures, but all failed. The line of percussion-dulness extended from the mid-axillary region forward and upward about 2½ inches above the normal line of liver-dulness.

During this period iodin was freely used locally, a supporting diet and internal medication carefully selected, and later on poultices were applied over the affected area. All attempts failed to locate pus, but the general condition and temperature pointed conclusively to infection at some point. It was concluded that a pocket existed in the diaphragmatic pleura, and, aside from occasional punctures in a vain attempt to withdraw or locate the pus, conservative treatment was adopted.

We were finally rewarded on April 7th, after a hectic condition of over two weeks, by the evacuation through the bronchi of the pus, which had so long been a source of trouble. During the first twenty-four hours no less than eight ounces were expectorated, but after this it appeared in ever-diminishing quantities, until finally, by the 15th of April, it was scarcely worthy of note, and had entirely ceased by the 20th. On April 7th the temperature was ranging from 99° to 102°, but from this time it steadily fell, and was normal when pus-expectoration ceased. During this period a supporting treatment was adopted, with local applications of iodin to the chest. Convalescence was rapid and uninterrupted. Before going to duty on May 11th the chest was given a careful examination, and, so far as could be determined, the cure was complete and no disability existed. The man went on six a months' furlough, and is at present visiting friends in Sweden.

This was without doubt a case of pneumonia-coccus, purulent pleurisy succeeding the attack of pneumonia. Some authorities state that there is reason to believe that in comparatively rare cases the pneumonia-coccus may reach the pleura through the lung, causing pleurisy, without inflaming the lung. Early in this case the most prominent features were symptoms of pleurisy; the pneumonia-cocci deposited in the pleural sac remained in a measure latent until defervescence showed the pulmonary inflammation to be at an end, when the germs assumed virulent activity, and in three days the symptoms gave unmistakable manifestations of pyogenia. Upon this subject there is an exceedingly interesting editorial article in the *Boston Medical and Surgical Journal*, May 25, 1893, vol. cxxviii, No. 21.

CASE II. *Pneumonia of the middle lobe of the right lung; treatment by massive doses of digitalis for the first three days, which was then stopped; no cardiac effects were apparent until seven days after the first dose; digitalis-pulse for ten days; cure complete.* J. F. O., a private of Company B, Twelfth Infantry

[1] Published by permission of the Surgeon-General, U. S. Army.

was admitted to hospital April 22, 1893, having had a chill the preceding day. Examination disclosed the usual symptoms of croupous pneumonia of the middle lobe of the right lung. The disease was confined entirely to this lobe, so far as could be determined by physical signs. During the first day the patient was given a mercurial purge and Dover's powder. On the following morning, May 23d, with his temperature 104.8°, the digitalis-treatment was instituted, in combination with chloral. He was ordered half an ounce of the infusion every hour, to be given until the temperature and respiration dropped to normal or nearly so. Chloral was given in 10-grain doses at intervals, to secure quiet and rest. Writers on this method of treatment uphold the fearless, bold administration of digitalis. In this case, after twenty-four doses, the temperature, on the morning of the 24th, had fallen to 101.8°. During this day the dose of digitalis was given every two hours. After twelve more doses the temperature at 8 A.M., the 25th, was 100°. The interval between doses was then increased to every three hours, and an evening temperature of 102.4° followed. On the 26th, at 8 A.M., the temperature had fallen to 99.2°, and the digitalis was stopped, and 5 grains of ammonium carbonate, a half-ounce of whiskey, and 3 grains of quinin were given three times daily.

With one exception to be noted, the convalescence was normal. During the time the digitalis was given the pulse was carefully watched, as being the indicator that would first announce a sufficiency of the drug. The pulse, during all the time the digitalis was exhibited and for three days after it had been stopped, presented no unusual features, not even a perceptible increase in tension. It is to be regretted that its frequency during these days was not recorded, but especial attention was paid to the pulse, and the first abnormal indication was discovered on April 26th, the morning of the crisis, and three days after the drug had been stopped. For several days the temperature was subnormal, as low at times as 97°, and from the 26th of April to the 7th of May the pulse was never more than 50 per minute, and was repeatedly found as slow as 36. It was really not until the 10th or the 11th of May that the normal frequency was established. During this period of subnormal temperature and pulse the condition of the patient was most encouraging; he seemed to be constantly improving, and suffered no ill-effects from the abnormal symptoms.

To epitomize: During the 23d, 24th, and 25th the patient took twenty-two ounces of infusion of digitalis; during these and the three subsequent days no effect on the pulse was apparent, though an undoubted effect was produced on the temperature.

On the morning of the 29th, three days after the exhibition of digitalis had been stopped, we had the characteristic slow, tense pulse of digitalis, and this persisted for ten days. To me this delayed and so-called cumulative action came as a considerable surprise, and for a time I was disinclined to ascribe the existing conditions to the drug employed.

In this connection I remember the case of a civilian teamster treated for pneumonia (not with digitalis) during the Pine Ridge troubles, in which the convalescence was marked by a persistent forty-per-minute pulse. In this instance the man claimed that this was his normal pulse-rate, but he insisted on leaving the hospital before his statement could be positively verified.

The patient in the case under consideration suffered no ill effects from the digitalis, except that after the second day it seemed to irritate his stomach and bowels, and it was for this reason that it was discontinued.

FORT SULLY, SOUTH DAKOTA.

TWO REMARKABLE CASES OF RECOVERY FROM POISONING—ONE BY OPIUM, THE OTHER BY CARBOLIC ACID.

BY ELIOT GORTON, M.D.,
ASSISTANT PHYSICIAN TO THE NEW JERSEY STATE HOSPITAL AT MORRIS PLAINS, N. J.

CASE I. OPIUM-POISONING.

ON the 13th of October, 1892, two of the male employés of the asylum, while on their way home from work, found a woman lying beside the road a short distance from the hospital, whom they recognized as one of our nurses. She seemed dazed and stupid, and as she could apparently neither walk nor talk, they carried her to the building, arriving at 6.30 P. M.

I saw the patient immediately, and found her in a semi-conscious condition, unable to stand or to talk coherently, although she moaned and cried out occasionally, as if in pain. Her pupils were strongly contracted, and this, in connection with the fact that I had treated her at different times for attacks of bilious colic, led me to believe that she had been overcome by one of these seizures, and, having resorted to opium in some form, had taken an overdose. In searching her, we found an almost empty bottle labeled "Laudanum."

The stomach-pump was used at once and the stomach found empty. However, apomorphin and brandy were administered hypodermatically, and the stomach was washed out with warm water. Retching occurred, but no vomiting. Strong coffee was then given, hypodermatic injections of brandy and one-thirtieth grain of atropin were administered freely, and the girl was forcibly held on her feet and kept moving. Flagellation with wet towels was also resorted to whenever the patient flagged, and as soon as those attending her were tired others took their places. At 10 P.M. these methods failed to be of use, and in spite of all efforts the patient became limp and unconscious. The face was cyanosed; the conjunctivæ injected; the pupils were the size of pin-points, and the respirations, which had been fairly good up to this time, fell to four per minute. The heart began to fail, and the extremities were cold. She was then placed in bed and twelve nurses, four at a time, relieved each other in applying massage. At 11 P.M. the respirations were three per minute, and the pulse, hardly perceptible at the wrist, was rapid and intermittent. Although we felt that we had a hopeless case to deal with, as a last resort the faradic battery was brought in operation, one electrode being placed at the diaphragm, the other over the phrenic nerve at the neck, with the result of increasing the respirations and relieving the heart for an hour, when this method became unsatisfactory, as the diaphragm failed to respond to the stimulation. At the suggestion of Dr. Prout, third assistant physician and pathologist, the electrodes were placed one over each phrenic nerve at the

point nearest to the surface where they pass in front of the scalenus anticus muscles, with a most gratifying and unlooked-for result. Respirations were increased or diminished at will, and immediately upon the contact of the electrode a full and forcible respiration occurred. At 1 A.M. the respirations had ceased entirely, except those produced by the strong electric current. The pupils were still contracted in spite of the one-thirtieth grain of atropin which had been given every half-hour since 10 P.M., and the patient was comatose. Dr. Prout and myself relieved each other at the battery every half-hour, and artificial respirations were kept up for six hours, or from 11 P.M. until 5 A.M., when our patient partly regained consciousness and the respiratory function became reëstablished. At the end of three days she was practically well, with the exception of an erythematous rash (probably due to the atropin) that covered her body and face, and which finally faded away. She stated that owing to some disagreement with her *fiancé*, she had taken the laudanum with suicidal intent.

The bottle bore the label of a firm well known to the profession for the purity and excellence of their preparations. She had taken ten drams of laudanum, U. S. P. strength, or the equivalent of five grains of morphin, as much if not more than that given to the unfortunate Helen Potts. It is my opinion that she owes her recovery to the massage and the battery, both of which were continued until she was out of danger.

The battery was a Jerome Kidder faradic, with Smee's cell, such as is figured and described in *Medical and Surgical Electricity*, by Beard and Rockwell, edition of 1883, p. 295.

I also desire to again call attention to the method of applying the electrodes, viz., one over each phrenic nerve at either side of the neck. There is no mention of such a method in any of our text-books which have come under my observation, nor have I ever seen any literature bearing upon their use in this manner. It certainly produced the desired effect, while the usual method of applying the electrodes to the nerve at the neck and the diaphragm failed. The normal number of respirations was produced for six hours consecutively, and the patient never failed to respond to the contact of the electrodes used in this manner.

CASE II. CARBOLIC ACID POISONING.

As if to illustrate the fact so often observed and commented upon by physicians, that one unusual case is commonly followed in a short time by another, on the 17th of October, or four days after the occurrence just detailed, at 7 A. M., it was reported to me that Mrs. S., a demented patient, had just taken a glassful of a carbolic acid solution. Bearing in mind the rapid diffusibility of this drug, no time was lost in getting to the ward with the necessary paraphernalia, and, though she was in a ward at the extreme end of the female department, probably not more than fifteen or twenty minutes elapsed from the time of taking the acid until active antidotal treatment was instituted.

The patient was found in a state of collapse, wholly unconscious, the pupils contracted, the face pallid, respirations short, shallow, and diminished in frequence, no pulse at the wrist and the heart-beats extremely intermittent and rapid. There would be several beats in rapid succession, then a pause of two seconds; then a single beat; then a few more beats and another pause, until it seemed that the heart would stop beating before any remedial measures could be applied. Apomorphin, one-sixth grain, and atropin, one-thirtieth grain, were given hypodermatically and the stomach-pump was used at once, though it was feared that the insertion of the tube would cut off breathing entirely. The stomach was thoroughly washed out with warm water, followed by the introduction of two quarts of water holding in solution four ounces of magnesium sulfate. At this time the apomorphin produced free emesis and the odor of the acid in the ejected fluid was very perceptible. Finally, two gallons of water in which a pound of magnesium sulfate had been dissolved were used as follows: the solution was pumped into the stomach until this became distended, when pressure upon it produced copious emesis; and this operation was continued until the circulation and respiration were restored and the patient regained consciousness. She was then put in bed, wrapped in flannel blankets, with bags of hot water to her feet and sides; a tablespoonful of brandy was given every hour, a tablespoonful of a saturated solution of magnesium sulfate every two hours until four doses had been taken, and the patient made a good recovery. Her throat was sore for several days, but, owing to the diluteness of the acid, no excoriation occurred. She swallowed eight ounces of a 2½ per cent. solution, or the equivalent of ninety-six grains of pure carbolic acid. This was not taken with suicidal intent. The nurse had been using the solution] for disinfecting purposes, and inadvertently left the door of the wash-room open. The patient, desiring a drink of water, drank the glassful of the carbolic acid solution before the nurse noticed what she was doing.

No comments are necessary concerning these two cases. I consider the recoveries remarkable on account of the amount of poison ingested and the extreme gravity of the symptoms. They are illustrations of the results which can often be accomplished by the use of prompt, decisive, and continued measures, even when a case seems hopeless, and they also serve to emphasize the old adage: "While there is life there is hope."

For valuable and timely assistance in the management of the cases, I am indebted to the other members of the medical staff.

DEATH FROM NITROUS-OXID GAS.

BY FRANK J. THORNBURY, M.D.,
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NITROUS OXID (nitrogen monoxid, "laughing gas," protoxid of nitrogen) is a colorless, almost odorless gas, made by the distillation of ammonium nitrate at a temperature of from 460° to 480° F.

When pure nitrous-oxid gas is inhaled for from half a minute to three minutes, insensibility is produced, preceded in many instances by much excitement. Some persons under the influence of the gas sink quietly into unconsciousness, while others become hilarious, erotic, or pugnacious. During anesthesia from this agent, patients present evidence of asphyxia, although the phenomena of mechanical asphyxia are different from

those produced by nitrous-oxid gas. The cerebral pulsations are decidedly lessened and finally abolished, although the cerebral pressure is increased.

The causes of the effect of nitrous oxid upon the system are not positively understood; the phenomena produced seem to be due to deprivation of the blood of oxygen. One observer (Prof. Paul Bert), believing that the production or non-production of anesthesia by nitrous oxid is due to the tension of the gas in the blood, devised an apparatus by means of which the nitrous oxid could be administered to the patient mixed with an equal quantity of oxygen, under a pressure of at least two atmospheres; the result is said to be satisfactory. The method, although expensive and cumbersome, is much used in Paris. Smaller animals live in an atmosphere of nitrous-oxid gas for only short intervals, the time varying from thirty seconds for the mouse, to sixty minutes for the frog. All finally die of asphyxia. Life, however, can be sustained in the gas by introducing a quantity of oxygen, approximating that ordinarily contained in air.

The circulatory changes in asphyxia, due to deficient oxygenation of the blood, are at first peripheral. The dark, non-aërated blood refuses to circulate through the capillaries, and a damming back and subsequent paralysis of the heart take place. During nitrous-oxid narcosis the amount of carbon dioxid exhaled from the lungs is much below the normal. This anesthetic has been administered to hundreds of thousands of cases and but very few deaths are recorded. Only two or three fatal cases are mentioned in most of our standard text-books. The administration by means of an India-rubber bag containing at least eight gallons is the preferable method. The mouth-piece should contain two valves so that the expired gas is thrown out into the air and not back again into the bag.

Following this prelude to the use of nitrous oxid, I desire to make a brief report of an autopsy, made May 1st, for the Coroners of Erie county, upon a woman who died after the administration of four gallons of nitrous oxid by a dentist for the extraction of four teeth. Soon after the induction of anesthesia, the patient began to show signs of embarrassed breathing. Medical consultants were summoned. The pulse became rapid and attempts at breathing spasmodic. Artificial respiration was resorted to; the lower extremities were elevated. Nitro-glycerin, gr. $\frac{1}{100}$, was administered hypodermatically, and ammonia applied to the nostrils. The patient seemed to rally for a short time, but unconsciousness continued; the pulse became more rapid and feeble, and the heart's action finally ceased.

The report of the autopsy was as follows: The body is that of a middle-aged female, fairly developed and poorly nourished. Post-mortem rigidity is slight. Post-mortem staining is present over the pendant portions of the body. The ears are filled with cotton. The median incision shows the subcutaneous fat to be small in amount. No pleuritic adhesions exist in the thorax. The right lung weighs sixteen ounces, is universally congested and edematous; there is exudation of a large quantity of frothy serum. The left lung weighs thirteen and a half ounces, and is also congested and edematous. The lining membrane of the bronchi upon both sides are intensely hyperemic, and the tubes partially filled with frothy exudate. The heart weighs ten ounces and is of normal size and color. The ventricles are firmly contracted, and the walls of the left ventricle are slightly thickened. There is a dark clot in the chorda of the mitral valve. There are three minute atheromatous areas on the posterior wall of the aorta just above the segments of the valve. Over the anterior surface of the esophagus are two areas of hemorrhagic extravasation, irregular in outline and about the size of a half-dollar. The tracheal mucosa is heavily coated by a frothy, removable mucus. The larynx is congested and the lining membrane is also covered with frothy, slightly blood-tinged mucus. The congestion is especially marked in and just below the ventricles. The aryteno-epiglottidean folds are considerably corrugated, suggesting preëxisting edema. The position of the viscera is normal. The spleen is dark, moderately firm, normal in size and in consistency. The kidneys show a dark-bluish discoloration; the surface is smooth, the capsule non-adherent. The right is slightly smaller than the left, and contains a blood-clot beneath the mucosa of the pelvis and the true renal substance. This clot occupied an area one-half a square decimeter in extent. The ureters are normal and the bladder empty. No urine was obtained for analysis. The liver is normal, its weight three pounds. The stomach is normal in size and contains about six ounces of partially-digested food. The mucous membrane is coated with thick, semi-tenacious mucus; the membrane is slightly slate-colored in appearance. The intestines are normal. The uterus shows catarrhal endometritis, and there is a small quantity of mucus in its cavity. The left ovary shows a very recent corpus luteum and there is also a small cyst present. No adhesions exist. The right ovary and the tubes are normal. The brain was not examined owing to inability to obtain the consent of the Coroner.

This case illustrates the invariable presence of danger in the administration of anesthetics, even of the supposed harmless "laughing gas."

On the grounds of the pathology the use of oxygen in the treatment seems indicated, the condition of asphyxia, as shown, being due to the deprivation of the blood of oxygen.

MEDICAL PROGRESS.

Osteomalacia during Pregnancy; Porro Operation; New After-treatment.—SEELIGMAN (*Centralblatt für Gynäkologie*, 1893, No. 28, p. 649) has reported the case of a woman, thirty-seven years old, who, married for fifteen years, had been pregnant twelve times, seven children having been carried to term and five miscarriages having taken place. The hygienic surroundings of the family were ordinarily good. The children were usually kept at the breast for periods varying from ten months to two years, so that a new pregnancy took place before the preceding lactation was terminated. During the eighth pregnancy, which terminated in the birth of the fifth child, the woman began to complain of pain in the pelvic bones, extending thence to the upper and lower extremities and interfering with her ability to get about. Notwithstanding her deplorable condition, she conceived four times in the following seven years, bearing two living children and aborting twice. The last child was delivered by means of version and extraction, and

died soon after birth. The condition of the patient now became even worse than it had been. While dragging about upon crutches she fell and fractured the right thigh in its upper third. Shortly afterward the woman became pregnant for the eleventh time, and aborted at three months. She now fell into the hands of a so-called "wise woman," who applied one hundred leeches to different parts of the body, withdrawing a large amount of blood. Some time after this she became pregnant for the twelfth time. When seen, in about the thirty-fourth week of pregnancy, the woman was greatly emaciated and deformed. The right leg measured some two inches less than the left. The abdomen was prominent, and there existed a kyphoscoliosis dextra in the dorsal region and a decided lordosis in the lumbar region. The child occupied an oblique position in the pelvis, with the head to the right and the back anteriorly. The urine contained a trace of albumin, but no sugar. The distance between the iliac spines was 9.6 inches; between the iliac crests, 12.1; between the trochanters, 12.5. The external conjugate measured 7.4 inches. The pelvis, on examination, proved to be a typically osteomalacic one. The horizontal and descending rami of the pubes were approximated and the pubic arch presented a figure-of-8 shape, the sacral promontory projecting into the cavity of the pelvis. The symphysis projected forward and the diagonal conjugate measured 3.1 inches. The pelvic outlet just permitted the passage of two fingers. It was determined to perform celiotomy and remove the uterus and its appendages. As cholera was prevalent at the time, the operation had to be performed under unfavorable conditions at the woman's home. The woman suffered so much pain upon even the slightest manipulation that the preparatory bath had to be foregone. The operation was unattended with difficulty. The uterine stump was treated extra-peritoneally. Primary union took place without complication. The child also did well. As, according to the general consensus of opinion, it was to be expected that the pains would cease and the bones begin to become hard soon after the operation, it was decided to attempt to improve the woman's condition by extension of the whole body, and the results amply justified the attempt. At the end of eight weeks the size of the woman had actually been increased seven inches, and the right lower extremity was almost as long as the left. The configuration of the pelvis also underwent a change for the better. The diagonal conjugate was increased in size from 3.1 to 3.5 inches. The excessive spinal curvature was almost entirely overcome. From having been a helpless invalid the woman was able to resume her household duties.

Profound Cerebral Symptoms in Adults from Indigestion.—That profound cerebral symptoms may appear in adults, as well as in children, as the result of errors in diet, is well illustrated by two cases recorded by CORTIAL (*Archives de Méd. et de Pharm. Milit.*, 1893, p. No. 7, 56). One occurred in a man, twenty-three years old, who fell unconscious upon the street and was thought to have suffered a cerebral hemorrhage. About six ounces of blood were withdrawn and an ice-bag was applied to the head. All four members were agitated by movement, which was a little more marked upon the right than upon the left; the head was in constant motion; the eyes were turned upward and inward; the pupils were contracted; trismus was present; the pulse was rapid and regular; fever was moderate. The sphincters were continent; there was no hemiplegia. The stomach was distended and, notwithstanding the state of consciousness, pressure evidently induced pain. As cerebral hemorrhage is exceptional in young persons, alcoholism, indigestion, insolation, and heat-exhaustion were considered. The evidence pointed to indigestion as the cause of the symptoms and, accordingly, a further bleeding of ten ounces was practised; dessertspoonful doses of infusion of tea were administered; a purgative enema of senna was given; the epigastric region was gently cauterized; and massage of the abdomen was from time to time performed. In a short while the patient began to vomit, bringing up the remains of some salad taken the day before; copious stools also followed. Consciousness was only gradually resumed. It was, however, two weeks before the man was quite restored. He related that he had not been exposed to the sun or to intense heat, but that on the day before his attack he had partaken of some salad, and that on the day of the attack he had eaten nothing, on account of a severe headache and a feeling of malaise.

The second case occurred in a vigorous man, twenty-six years old, who was found unconscious, with eyes fixed; pupils contracted; respiration deep and a little stertorous; marked agitation of all four members, but especially upon the right, and without contracture; full but not rapid pulse; warm skin and hot head. He had been in good general health, suffering, however, with an attack of migraine about once a week. On three successive days there had been epistaxis. Stool had been painful and difficult. The man had gone to bed without making complaint, but toward midnight he was heard to groan, and then was found unconscious and in active convulsive movement. Other attacks occurred and were seen to be epileptiform in character. The parents asserted that the man had never had such attacks before. Indigestion being suspected, examination showed the abdomen to be distended and the percussion-note over the stomach to be dull. Strong pressure in the epigastrium appeared to induce pain and to excite a convulsion. After a bleeding of sixteen ounces the patient opened his eyes and became conscious. Abundant vomiting followed the ingestion of several cups of weak infusion of tea, bringing up imperfectly masticated meat. Purgatives were also administered, and in the course of a few days the patient was restored to his usual health. The distinguishing features of cases in which indigestion gives rise to cerebral symptoms are the fulness of the abdomen, with pain on deep pressure, and absence of modification of the respiration.

The Control of Hemorrhage from the Liver.—SMITS (*Geneesk. Tydschr. voor N. Indie*, B. xxxiii. H. 1; *Centralbl. f. Chirurgie*, No. 28, p. 622) has reported the case of a Malay, eighty years old, who was brought into the hospital apathetic and unconscious, presenting evidences of profound anemia. Below the ensiform cartilage and a short distance from the median line, on a level with the seventh and eighth ribs and parallel with the costal margin, there was an everted penetrating wound, about three and one-third inches long, from

which a steady stream of dark-red blood constantly flowed. There was no evidence of thoracic or abdominal complication. As the conditions indicated an injury of the liver, the outer wound was enlarged, and a wound a little more than an inch long and parallel with the external wound, was found in the liver, from which the dark-colored blood escaped. By means of a "mattress suture" the wound in the liver was readily closed with chromicized catgut, only so much of the blood-clots present being removed as interfered with accurate approximation. When it was seen that no further blood escaped from the liver the margins of the peritoneum were approximated with catgut and the skin-flaps with silk. Drainage was not deemed necessary. In addition, auto-transfusion was practised and stimulants were administered. The further course of the case was uneventful. The wound had healed at the end of eleven days, and in ten days more the patient was dismissed. In an ape upon which an aseptic celiotomy was performed it was possible to check the parenchymatous hemorrhage from the liver resulting from the excision of a wedge-shaped piece of tissue in the same way. The larger vessels were caught with forceps and ligated. It is thought that previous failures in suturing the liver may have been due to the fact that only healthy liver-tissue is suitable for this manipulation; a good result cannot be looked for if the liver be infiltrated, or syphilitic, or otherwise degenerated.

Generalized Melanotic Carcinoma.—LANDOWSKI (*Bull. de la Soc. Anat. de Paris*, tome vii, fasc. 15, p. 371) has reported the case of a woman, fifty-seven years old, who during life presented upon the skin in various situations small nodules of rapid evolution and of indubitably malignant character, death taking place amid the symptoms of cerebral hemorrhage. At the post-mortem examination nodules were also found in the pericardium, in the myocardium, in the kidneys, in the thyroid gland, and at the hilum of the lungs. The supra-renal capsules were greatly enlarged. There were small tumors in the mesentery, some of which, situated in the intestinal border, had ulcerated into the bowel. Tumors were also found in the course of all of the large vessels. The liver was intensely pigmented. Microscopically the new-growth presented the histologic appearances of melanotic carcinoma. The cerebral hemorrhage appeared to bear no relation to the carcinomatous diathesis, although the entire brain was dissected with great care.

To Sterilize New Cover-glasses ZETTNOW (*Centralbl. für Bakteriologie und Parasitenk.*, Bd. xiv, No. 2, 3, p. 63) has found it best, after having cleansed them, to place them upon a piece of sheet-iron, some three or four inches square, held for several minutes over the flame of a Bunsen burner. Thus treated, the glasses will not break. A dozen or fifteen can be sterilized in this way at one time. A copper plate will not answer, as the copper oxid developed by the heat would combine with the glass.

THERAPEUTIC NOTES.

Fatal Intoxication with Eucalyptus.—NEALE (*Australasian Medical Gazette*, April, 1893; *Practitioner*, No. 302, p. 129) has reported the case of a boy, ten years old, who took an ounce of oil of eucalyptus, and shortly afterward was found gasping for breath; he then vomited, with relief, and breathed well for an hour; but the struggle for breathing gradually returned and increased until death took place. Vomiting occurred but once, and there was no purging and no convulsion. The boy got out of bed, after vomiting, to take a drink of water; he spoke rationally up to within an hour of his death; and once he complained of pain in the right axillary region, which was relieved by a poultice. At the post-mortem examination the stomach was found greatly distended with gas. It contained a small amount of thick, yellow, odorless fluid. Its outer surface was white, except where it was stained by contact with the spleen; the inner surface was white, thickened, and puckered, as if painted with a mild solution of carbolic acid, but not brittle. The liver, kidneys, and spleen appeared healthy. The pleural cavities contained a quart of bloody serum. The lungs were compressed. The right heart contained frothy liquid blood; the left was empty and contracted. The brain was soft and pulpy; the membranes full of blood.

The Treatment of Erysipelas.—KOLACZEK (*Centralbl. für Chirurgie*, 1893, No. 28, p. 601) calls attention to the advantage of an occlusive dressing in the treatment of erysipelas, particularly as seen in surgical practice. For this purpose he employs what he designates as "rubber paper," which, at first, he moistened with a 5 per cent. solution of carbolic acid and had extend well beyond the margins of the affected surface. Latterly he has discarded the use of carbolic acid in this connection, as he found that it caused the paper to adhere to the skin to which it had been applied, so that its removal was attended with difficulty and distress. Over the dressing is placed a compress of cotton and a firm bandage. The dressing is changed after the lapse of twenty-four hours and a larger piece of rubber or additional strips are applied if the process has extended. The efficacy of the treatment is supposed to depend upon the suppression of the perspiration that results, the unexcreted metabolic products being thought to have a destructive or inhibitive action upon the streptococci. The success of the procedure depends upon the accuracy of the approximation of the dressing to the surface.

Salacetol is the name given by BOURGET (*La Semaine Médicale*, 1893, No. 41, p. 328) to a synthetic product consisting of 75 per cent. of salicylic acid and 25 per cent. of acetol. It is said to possess the intestinal antiseptic virtues of salol, without its disadvantages, and particularly its toxicity, which is dependent upon the carbolic acid that it contains. Given with castor oil, in the proportion of 30 or 45 grains to the ounce, it has proved useful in the treatment of summer diarrheas, choleriform affections, and cholera nostras. An adult may take the entire amount once daily, and repeat it if necessary. Children will take correspondingly smaller doses. Salacetol has also proved useful as a disinfectant for the genito-urinary tract, as well as in cases of subacute rheumatism and gout. The combination with castor oil increases its efficacy by inducing abundant secretion of the alkaline intestinal juices, thereby facilitating the decomposition of the drug.

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MEDICAL WRITING FOR ADVERTISING PURPOSES.

A DISTINCTION is readily made between medical writing, according as it is designed for the lay-press and lay-reader, or for the medical press and the professional reader. THE NEWS has contended that it is the duty of medical men to instruct the lay-world, through the lay-journal, concerning hygienic and medical truth. In so doing, however, there is great danger that the pure motive of public instruction may be debased by the alloy of self-seeking, and the writer descend to the moral level of the scamp who himself writes or suggests to the reportorial tool the "puffs" of himself, his goings and comings, his success in treatment, his appointments to positions, etc. All human acts are to be judged by the motive of the actor. Somehow or other the motive will become manifest. The self-advertiser loses delicacy of perception, tact, the little sense of modesty he ever possessed, and he more and more unconsciously sticks his cloven foot in the view of the whole world—that world that is growing ever more expert in the detection of Mephistophelean feet!

The medical writer in the professional journal is also to be judged by his motive, but his judges here, being his equals and more expert, more readily detect the ill-concealed marks of cunning and the secret desire to attract attention to the writer, while pretending to direct attention to the thing written. No one sees this unconscious display of motive so quickly as the pitiable (but never pitied) conscientious medical editor. This is partly owing to the fact that with him it is a matter of much experience, and partly also that it is his chief duty, in the interest of his readers, to thus discriminate between worthy and worthless writing. The advertiser, however, also often naïvely enough tells his own secret to the editor, for example, by insisting on the insertion of illustrations that do not illustrate, and that are designed simply to attract attention. The lay-newspapers are nowadays greatly exercised as to the insertion of cheap and worthless cuts, those journals which appeal to the most unintellectual readers finding it necessary to give the greatest number of worthless and untrue pictures.

It is a settled policy of the medical self-advertiser to write a certain number of books or articles each year, absolutely regardless of whether he has anything new to say, or whether what he says may be valuable or valueless to the profession. The editorial quandary is greatest in those rare cases in which the writer's motive is plainly selfish, as evidenced by the title, methods of expression, the insertion of egotistic and irrelative details, etc., but when also there is really something professionally instructive or interesting behind the tricksiness of conceit and advertisiness. Intellect and lack of principle are sometimes to be found in one individual, but the latter quality generally soon gets the upper hand.

When the medical advertiser writes an article for the lay-public for the purpose of attracting attention to himself, the fraud becomes manifest to his equals because the glitter of the born quack shines through every word. It is an appeal direct for patients. When he writes for the medical journals it is an appeal indirect for consultations and reference-cases. These appealers, therefore, are largely composed of professors and specialists, who want to "strike" the general physician or the specialists in other departments. It happens also that the ambitious use this means of calling attention to self simply to gain hospital-appointments, to secure professional positions, or to justify themselves before the world when such positions have been politically gained and the self-boomer knows himself that he has neither the requisite intellect, the adequate medical knowledge,

nor the clinical experience for such a position. Books and articles must be written to prove that the lie is not a lie.

And the writing of books and articles—what an easy matter for an expert! There are several methods:

There is, for example, the stolen patchwork method, which consists in cribbing from half a dozen or more authors or encyclopedias the data and ideas, so changed, of course, in language that no one can recognize the sources, and padded dextrously with assertions of personal experience, or with random bits of dogmatism, disagreements from the statements of this or that other writer, etc.—the whole thing not only medically valueless, but leading the trustful and ignorant into mistake and error.

Another common method is to hire for money or promise of preferment the brains of assistants and of those without practice, using the scholarship and the work of others as one's own. This has been a remarkably successful way in the past, but it is to be hoped that it is soon to become "stale, flat, and unprofitable."

Still another way is to build upon the apex of a cone of personal experience, used as a base, a very top-heavy superstructure of silly egotism and exaggeration. Last year, for instance, at a meeting of physicians in an Eastern city, an essayist, apparently to clinch a point as to the rarity of a certain pathologic condition, emphasized the fact that "in the one or two hundred beds under his care, and the three hundred and fifty dispensary cases daily seen by him," etc. Everyone smiled or sneered at the statement, knowing that it was introduced from no interest in the disease, but from much interest in the introducer. In two seconds everyone made the mental calculation that DR. HORNBLOWER saw something like a patient a minute for six or seven hours each day, or two patients a minute for three hours, and that the dispensary visits in that city numbered several millions annually.

Good medical writing is either a laborious digestion and epitomization of the medical experience of others, honest credit being given, or it is a concise setting forth in truthful, modest phrase of the sifted results of one's own clinical experience. Let us have more good medical writing for the sake of the profession and humanity, and less of sham medical writing for the sake of money-getting, thimble-rigging, and advertising!

APYRETIC INFECTIOUS ENDOCARDITIS.

A SHORT time ago (see THE NEWS, May 13, 1893, p. 521) we took occasion to advert to the occurrence of enteric fever without pyrexia. The obvious inference to be drawn from the admission of such an event is that other infectious processes may likewise pursue their course without elevation of temperature. As if in confirmation of such an assumption comes the report by SARDA and BOTHEZAT (*Nouveau Montpellier Médical*, 1893, No. 26, p. 511), of the case of a man in which, in the midst of an acute illness of ill-defined character, attended with anorexia, diarrhea, vertigo, headache, and insomnia, there developed gelatinous edema of the anterior thoracic wall, together with a systolic endocardial murmur heard over the left ventricle and not propagated. In the pulmonary area a duplication of the second sound was heard, which was attributed to a circumscribed dry pericarditis. Great weakness, with a typhoid state, supervened. In the course of the illness small quantities of albumin appeared in the urine, which was excreted in small amount and proved to be actively urotoxic. Examination of the blood disclosed the presence of diplococci. The patient became convalescent after the illness had existed for six weeks, and was lost to observation. There will, no doubt, be skeptics who, in the absence of post-mortem demonstration, will look with suspicion upon the accuracy of the diagnosis of infectious endocarditis made in this case, but it must be urged that there can be no substantial ground for such a position, as the competency and fidelity of the observers must be admitted, and as, besides, there is something in the *tout ensemble* of a case as seen at the bedside that cannot be reproduced in a clinical report. Granting, then, the accuracy of the observation, we are at once confronted with the difficulty of an explanation of the anomalous occurrence; for we know too little, as yet, of the temperature-regulating mechanism of the animal organism to adduce an explanation susceptible of demonstration. Speculating within what seem reasonable bounds, it may be that under certain conditions of infection toxic products are generated that do not act upon the heat-regulating mechanism in the same way as other toxic products usually do; so that in the one case we have an absence, in the other the presence of fever.

In further confirmation of the position here taken it is interesting to note that COMBEMALE (*Gaz. hebd.*

de Méd. et de Chir., 1893, No. 30, p. 352) has just reported two fatal cases of typhus fever, in both of which a transitory elevation of temperature was followed by persistent depression below the normal. He offers the alternative explanation of a toxic inhibition of the thermogenic centers in the brain or medulla, or the development of a toxic or infectious nephritis.

Finally, although we may not be able to give the explanation, it is well for the clinician, in fact it is incumbent upon him, to recognize that infectious processes may pursue their course and even lead to a fatal termination in the absence of all elevation of temperature; so that the absence of pyrexia need not be a bar to the diagnosis of an infectious disease.

"TO PREVENT THE SPREAD OF CONSUMPTION."

DR. DELANCEY ROCHESTER, a physician of Buffalo, N. Y., has adopted a method in preventive medicine and popular instruction that shows him to be a true-hearted and clear-headed physician. To the patient and to his friends in every case of pulmonary tuberculosis to which he is called he gives copies of a little printed slip, always carried in the pocket for the purpose, which reads as follows:

DIRECTIONS TO PREVENT THE SPREAD OF CONSUMPTION.

Consumption is an infectious disease, *i. e.*, it can be communicated to a person previously well by one who is suffering from the disease.

The agent of infection exists in the breath, to a limited degree, in the urine, the evacuations from the bowels, and the sweat in many cases, in whatever may be vomited, but *most of all* in the material that is *coughed up and spit out.*

As long as these materials are kept moist there is no danger of infection, unless they are brought into direct contact with the mouth, nose, eyes, or other mucous surface, or an open wound or scratch. If they dry on the clothing, on handkerchiefs, in a cup or spittoon, or other vessel, or on the floor or walls, they become disseminated through the air as minute particles of dust, and as such may be breathed in by a healthy individual, who thus runs the risk of infection.

Consequently, the underclothing and bedclothing of the consumptive should be changed at least twice a week (more often if the patient sweats much), and those articles of clothing taken off should be boiled for a half-hour before they are washed; the movements from the bowels should be passed into vessels containing water, and these vessels, as well as those into which the urine may be passed, should be thoroughly cleansed with boiling water; the sputum should never be expectorated into a handkerchief or other cloth upon which it might become dried, or upon the floor, walls, or sidewalk, but always into a cup or other suitable vessel containing water, which is kept covered when not in actual use; if the patient is walking about, a wide-mouthed bottle, containing some water and securely corked, can be carried in the pocket and used when necessary; the sputum thus collected should be emptied from the vessel three or four times in the twenty-four hours, and *immediately* burned; the vessel and its cover, or stopper, should each time be thoroughly cleansed with boiling water; the table utensils, including the napkin, of the patient should be thoroughly boiled before being otherwise washed; the mouth, nose, and throat of the patient should be thoroughly cleansed, at least twice daily, with a cleansing solution made by dissolving one teaspoonful of sodium bicarbonate (saleratus) in one-half pint of warm water. The well members of the family should not kiss the patient on the mouth; and under no circumstances should any one of them sleep in the same bed with the patient. The patient's room should be thoroughly ventilated and should never be tightly shut up; it should also be as sunny a room as possible.

We present this medical missionary tract in order to solicit suggestions of changes or additions that may seem wise on the part of our readers, and also to say that if a sufficient number of advance orders are forwarded to THE NEWS we will have a large number of the tracts printed at the cheapest rate possible, and will supply physicians with them at the inconsiderable cost of printing. We urge a hearty acceptance of the plan, as it is at once in the interest of true humanity and of a better understanding on the part of the community of the real spirit actuating the medical profession.

EDITORIAL COMMENTS.

The Association of Posterior Spinal Sclerosis and Exophthalmic Goiter.—Although exophthalmic goiter is far from being a rare disease, and although it has received a good deal of attention and study, both clinically and pathologically, there is as yet a lack of crystallized opinion as to its morbid anatomy. The lesions found in the fatal cases in which post-mortem examinations have been made have not been uniform, nor always significant; while the perfect recovery that takes place in some instances demonstrates that organic changes are not always present. It is just here that the pathologic classification of disease of the nervous system into functional, nutritional, structural, and organic, proposed by Gowers, finds appropriate application. Upon this basis it can be readily understood how in a disease like exophthalmic goiter, at first purely functional, nutritional changes may follow, and these in turn give rise to structural alterations, if the morbid tendency be not checked or eradicated. Thus it is that in some cases palpable changes are found after death, while in other cases no lesion is demonstrable. This conception will also shed some light upon the occasional association of exophthalmic goiter with other structural diseases of the nervous system, an association that is not to be looked upon as merely accidental, but dependent upon community of cause or community of predisposition. Records of cases

are not wanting in which exophthalmic goiter has been thus associated. For instance, THE NEWS of May 7, 1892, p. 520, contains a reference to a case of exophthalmic goiter, in which after death atrophy of the left restiform body and of the right solitary fasciculus was found; and THE NEWS of August 20, 1892, p. 214, contains the report of a case of exophthalmic goiter attended with incipient posterior spinal sclerosis. Recently MARIE and MARINESCO (*Revue Neurologique*, 1893, No. 10, p. 250; *Gaz. hebd. de Méd. et de Chir.*, 1893, No. 30, p. 354) report the case of a woman, thirty-six years old, who thirteen years previously had suffered with lightning-pains, followed successively by motor ataxia, laryngeal crises, diplopia, and gastric crises. Upon examination there was also found exophthalmos, with imperfect descent of the upper lid in association with the downward glance of the eye, tachycardia, and tremor, but without appreciable enlargement of the thyroid gland. There were present, besides, symptoms of posterior spinal sclerosis, with abolition of the knee-jerks. The woman died in an epileptiform crisis, and at the post-mortem examination, in addition to changes in the thyroid gland and the characteristic lesions of posterior spinal sclerosis, there was found symmetric sclerosis of the solitary fasciculus of the medulla and of the root of the trigeminal nerve. The opinion is further expressed that the bulbar theory of the etiology of exophthalmic goiter is the most reasonable.

Homeopathic and Faith-cure Statistics.—The *People's Health Journal*, a homeopathic journal of Chicago, publishes an exhaustive report of an exhaustive investigation by an exhausting homeopath, of the comparative statistics of homeopathy and "allopathy" as to the relative success in the chief American cities in the cure of disease. Of course, in every instance the poor "allopath" comes out with a sorry showing. The percentage of cures of the successful homeopaths should convince a doubting world, if figures could do it, and should make us hang our heads in bitter shame. Three simple facts, however, should be noted: 1. An attack of "spring fever" is not, by an honest man, diagnosticated as typhoid fever, nor every case of "sore-throat" classed as "diphtheria." Cure is easy and statistics cheap under such classification. 2. To have any value statistics must be gathered by impartial men, not by partisans. 3. No statistics exist, or by any stretch of sane imaginations can be supposed to exist, at the present time whereon to base such conclusions or any conclusions whatever. "Figgers won't lie, but figgerers will."

The homeopaths' half-sisters, the faith-curists, have also been holding a convention (conventions are fashionable nowadays), and had also their own splendid array of statistics. The *Boston Medical and Surgical Journal* says of these statistics:

"Out of two hundred cures reported, of thirty patients a diagnosis of organic disease had been made, and there were the usual number of fractures which had been marvellously reunited by faith. There was no record made, however, as to the subsequent position and deformity. The time of this method of cure appears to be much shorter than that required by surgical means—as one case of a broken ankle was said to have been cured in five minutes.

"The greatest curative effect of faith seemed to be upon erysipelas, for one hundred cases of speedy cures were reported. In what way the streptococcus is affected by a profession of faith was not clearly explained.

"The only case not curable by this means appeared to be rupture of the heart; for one person testified that by faith his child had been cured of colic, and a daughter of pneumonia. Their little one had been taken from them, but not by sickness; he died of a broken heart."

The Diagnostic Significance of Herpes Labialis.—Herpes of the lips is a symptom not uncommonly encountered in the course of an attack of cerebro-spinal meningitis and is considered of rather favorable omen in those cases in which it appears. It occurs much more commonly in the epidemic variety of meningeal inflammation than in the tuberculous variety. A series of observations by FELIX KLEMPERER (*Berliner klinische Wochenschrift*, 1893, No. 29, p. 693), at Strassburg, would seem to indicate that some degree of confidence can be placed upon the diagnostic significance of this phenomenon in the differentiation of these two forms of meningitis. He reports three cases in which, by reason of the family history and other attendant circumstances, there was reason to suspect the existence of tuberculous meningitis, but in two of which recovery presumably, and a post-mortem examination in one that terminated fatally actually, negatived such a diagnosis. Examination of the contents of the vesicles in two of these cases and in nineteen others disclosed the presence of pneumonia-cocci, staphylococci, and streptococci, respectively, in individual instances. The inference would thus seem reasonable that the organisms found may be looked upon as the cause of the formation of the vesicles, and the thought further suggests itself that they may be the same as those that are responsible for the primary affection with which the herpes happens to be associated. As herpes is of common occurrence in the course of diseases attended primarily or secondarily with the presence of micrococci, and is of rare occurrence in association with diseases dependent upon specific micro-organisms, it would seem that the appearance of the vesicles upon the lips may be considered among the points of discrimination in differentiating between the epidemic and the tuberculous form of cerebro-spinal meningitis.

Quackery and Lottery-gambling Join Hands.—In the *Christian Statesman* of July 29, Mr. Josiah W. Leeds gives a description of an advertising dodge devised by "The World's Dispensary" of Buffalo, N. Y. The scheme is so framed that it may possibly avoid the letter of the law, but if successful it is all the more nefarious. The Postmaster-General should look to it. It is proposed to distribute $10,000 in prizes among certain lucky holders of an advertising pamphlet of the *World's Expensary*. Mr. Leeds succeeded in arousing the manager of a general advertising company to a knowledge of the nature of the humbug, but could get no reply from the Chatham National Bank of New York, which seemed to be acting the part of bankers for the business. It is also to be gratefully noted that the *Christian Statesman* is *one* instance of a religious newspaper that will not admit the patent (which means, *not-patent*) mediciners to its ad-

vertising pages. The *Christian Standard*, the *Friend's Review*, and the *Christian Worker* are others, as we learn upon going to press. Is there another in the United States? If so, we wish to honor it!

The Oculist and the Trader.—A dealer in artificial eyes called upon an ophthalmic surgeon and said: "I came to thank you for sending me three of your patients, whom I have fitted with artificial eyes, and to give you the amount (five dollars for each case), as is my custom. . . . You will not take it? But Dr. Greatman, and Professor Expert, and Dr. Success do so—why should not you?"

The optician also called and introduced himself as a wholesale dealer, with the proposition to save the patient much money, and also to pay the physician 25 per cent. of the gross proceeds from the sale of spectacles. Again it was asserted that Dr. So-and-so, and that even such-and-such a hospital was pursuing this plan. It had, of course, never entered the mind of the trader that the manufacture and adjustment of spectacles is a science and an art, perfection in which requires years of study and experience, a conscience, and an intelligence begotten by no simple love of money, and he was, or pretended to be, equally unconscious of the perfect immorality of the proceeding.

Appendicitis in the Negro?—A valued contributor of THE NEWS, one of America's foremost surgeons, writes to ask if the negro is subject to appendicitis. He says:

"In common with other surgeons, I have had my share of cases, and have performed a number of operations, with a *very liberal* percentage of deaths; but I do not call to mind, nor can I learn of anyone of my Southern confrères who has seen the trouble in the black man. In days gone by, when I was in general medical practice and living in a population where there were large numbers of negroes, I do not think I have ever met, and I am certain I never recognized, a single case of disease in the region of the colon in the black man. This is a fact of which I have not seen any mention; and since the operation has been performed oftener at the North than at the South, it is questionable whether it has been thought of by any surgeon there."

We should be glad to record the results of experience in this connection.

Castration for Rape is not a new proposition, but, in view of the horrible prevalence of lynch-law in certain parts of the United States, it becomes a question if the procedure should not be given the sanction of good law-courts as well as that of the court presided over by the ferocious Judge Lynch. A correspondent in THE NEWS of April 30, 1892, proposes castration as a proper substitute for capital punishment. In such a suggestion there is no attempt to "make the punishment fit the crime," but for heinous sexual crimes castration would appear appropriate and logical. There is, however, a class of criminals, that will possibly be made more vindictive by any punishment, and especially by this form of it, and harbor a revenge perhaps more ineradicable than before against society. Then, too, a criminal thus punished has only to move to a part of the country where he is not known to escape knowledge of his mutilation. But, after all, the plan seems worthy of a trial.

The Mystery of Ice-Cream Poisoning is a reproach to the professions of medicine and chemistry. Year after year, with mournful reiteration, there are many reports of fatal cases. The deaths from this source must immensely exceed those from hydrophobia, but Pasteur institutes spring up like mushrooms in every country, whilst the deaths of the victims of poisoning by the cream are passed over in silence. Would it not be well to look into this matter? Would it not be well to prove or disprove the theory of a writer in THE NEWS (Dr. Hull, June 27, 1891) that the common ice-cream freezer is often an electric battery decomposing toxic products by means of the mixture acting as an electrolyte?

Increase of Lunacy.—The *Medical Press and Circular* suggests that the great increase of insanity (88,822 cases in England and Wales—2000 more cases than were on the list in January, 1892) may be accounted for by the law of supply and demand, the deficiency of asylum accommodation, etc., checking the increase, the waiting or preparing multitude ready to fill the increased accommodation. This is certainly calculated to give one the most decided "creeps."

"Honor to Whom Honor is Due."—In the *Medical Review* of August 5, 1893, there are nine distinct articles or abstracts taken from THE MEDICAL NEWS without a hint of credit. We are willing to forgive and forget on the ground that it was an oversight of the printer, that the editor was absent—on any excuse whatever, good or bad—if we could but have an opportunity.

The British Medical Association Has Admitted Women to Membership, by a resolution passed last year, and at the meeting this year made effectual by an amendment of the by-laws.

SELECTION.

THE GLAMOR OF SUCCESSFUL SURGERY.

I HAVE sometimes wished that, in the multiplicity of papers describing important operations and their great success, there might be an occasional one, not upon how to do, but upon how not to do it. There is a glamor about successful surgery—a flashing of swift fame, a glitter of gold and a promise of financial felicity, as well as the conscious pride of success and of instant relief—that may mislead, operations being done that might have been averted by judicious hygiene, and patient, wise medical treatment. It is useless to deny that unnecessary operations, sometimes sexual mutilations, are done, and that many women are saved from them by changing their professional adviser. Some are so blinded by their successful surgery that they are unwilling to admit that they have ever committed such a fault, and have no patience with those who suggest its possibility. Human judgment is fallible, and liability to error belongs to all.

I would not disparage the brilliant results obtained by abdominal section in pelvic suppurations, and I recognize among American operators many as able and as successful as any in the world; at the same time I would gladly see their work much more limited, as I believe it can be when medicine asserts its prophylactic and cura-

tive power, and it surely will in the progress of our knowledge.—PROFESSOR T. PARVIN, *President's Address, American Gynecological Society.*

REVIEWS.

SURGERY: A PRACTICAL TREATISE, WITH SPECIAL REFERENCE TO TREATMENT. By C. W. MANSELL-MOULLIN, M.A., M.D. Oxon., etc., Assisted by Various Writers on Special Subjects. With 600 illustrations, many of which are printed in colors, about 200 having been made from special drawings. Second American edition, revised and edited by JOHN B. HAMILTON, M.D., LL.D., etc. Octavo, pp. 1238. Philadelphia: P. Blakiston, Son & Co., 1893.

WHEN a work as large as this on a general subject, the literature of which is already so voluminous, comes to a second edition within two years, it would seem that the author has succeeded in impressing many readers with the idea that his teachings have some special value. Occasionally some department of surgery is undergoing rapid evolution, so that a frequent reissue of the books devoted to it is needful in order to keep pace with the progressive changes of opinion or of practice. Such, however, is certainly not the case with the volume now before us. It is almost identical with the first edition. The alterations that have been made are chiefly in arrangement, and are not always advantageous. For instance, it is not clear why Minor Surgery and Anesthetics should have been transferred from their former place, at the end of the book, to the portion treating of the General Pathology of Surgical Diseases.

Nothwithstanding occasional lapses into carelessness of style, this book is an agreeable one to read. But it is not, in our opinion, available as a guide to the practice of modern surgery. Neither the author nor the editor seems to have had clear ideas of what is needed in a work intended for this purpose. For example, the details of the antiseptic system are very vaguely set forth, and in a way calculated to make the reader doubt whether it has any real value. The various articles commonly used are enumerated, with brief comments, and then we find (on p. 166) the following:

"Hydronaphthol is strongly recommended as non-poisonous and as powerful as corrosive sublimate under the conditions of actual practice. It is very soluble in alcohol, but only slightly so in cold water. Salufer succeeds very well in the hands of some, and appears perfectly safe. Eucalyptus preparations are very agreeable at first, but patients are apt to get tired of the smell. Chlorid of zinc, which is stated to be almost inert as far as germs are concerned, is undoubtedly of very great value under special conditions." To this the editor adds: "Solutions of bromin and iodin have each an exceptional value in certain conditions."

These general statements teach nothing at all.

Again, on page 678, the editor says in a note: "Prof. Senn, in common with most German surgeons, prefers the chisel and mallet to the trephine." But we have been unable to find any directions given for the use of these instruments on the skull, and the student must seek this information, if he wants it, elsewhere.

In describing the operation of inguinal colotomy, the author says that, after the peritoneum is opened, "the finger is introduced and passed along the lower margin of the iliac crest until the mesentery guides it to the sigmoid flexure." Now, the fact is that some portion of intestine presents at once in the wound, and the surgeon has merely to make sure, by well-known anatomic features, that it is colon and not small intestine.

We note that there is no mention of hot water as a hemostatic; yet the value of this "wrinkle" is universally recognized at the present day. Again, in speaking of amputation, the author lays down as the first principle, "to sacrifice as little as possible." Modern surgery says—amputate at the point where the best stump can be made for the fitting of an artificial limb.

The editor has appended a chapter on "The Principles of Military Surgery"; but as it consists of only eleven pages, seven of which are devoted mainly to illustrations, this great subject is, of course, scarcely hinted at.

A number of new illustrations have been added in this edition; the bacteriologic ones, from Woodhead, are very good—most of the others very bad. None of them is sufficiently explained in the text. By way of frontispiece an exceedingly poor lithograph, purporting to represent Senn's operation of intestinal anastomosis, has been introduced. The portrait of Senn may be recognized; but the procedure is clearly an end-to-end suture, and the only visible instruments are four pairs of hemostatic forceps; the assistants seem to have fled. Figs. 193 and 205 would be more illustrative but for the fact that they are upside down.

We do not think that this volume is likely to add to the reputation either of the author or of the American editor. Should another edition be called for, it is to be hoped that the practical portion will be wholly rewritten, so as to bring it abreast of the times.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, WITH ESPECIAL REFERENCE TO THE CLINICAL APPLICATION OF DRUGS. By JOHN V. SHOEMAKER, A.M., M.D. Second edition, revised. In two royal octavo volumes. Philadelphia: The F. A. Davis Company.

WHILE a good text-book on therapeutics and materia medica is ever acceptable because of the constantly changing character of the subject-matter, we cannot feel that Professor Shoemaker's volumes have contributed materially to our sum of knowledge of drugs and their applications. Not to mention the absence from the pages of original material, the numerous typographic errors, the incomplete indexing, the omission of diacritical marks from the Greek roots, and the want of uniformity in the spelling of words, all indicate a hasty preparation and imperfect proof-reading. The book gives one the impression of being rather a compilation than a scientific treatise on materia medica, and the entire absence of classification, as shown in an alphabetic arrangement of the drugs with the bare statement of results culled from an immense bibliographic source without discriminating deductions, is not conducive to a clear understanding of their actual therapeutic values. In numerous instances the most important properties of truly valuable drugs have been overlooked, while obsolete and worthless remedies, as onion and beet, have found full mention. Apiolene and oxalic acid, the two

most efficient emmenagogues at our disposal, have not been credited, while spermine and cactin are rather favorably treated, notwithstanding the worthlessness of the former and the uncertain composition and commercial character of the latter. These are but a few of many examples. As a compilation the book is a success, but as a text-book on one of the most fundamental branches of medical science it cannot hold a foremost place.

THE HEALTH-RESORTS OF EUROPE. A Medical Guide to the Mineral Springs; Climatic, Mountain, and Seaside Health-resorts, Milk, Whey, Grape, Earth, Mud, Sand, and Air Cures of Europe. By THOMAS LINN, M.D. With an Introduction by TITUS MUNSON COAN, M.D. 8vo, pp. 330. New York: D. Appleton & Co., 1893.

IN a brief, but very clever introduction, Dr. Coan points out the *raison d'être* for this little volume, which, while written for the invalid and the tourist, contains much information that will prove valuable to the physician who may wish to give intelligent advice upon the selection of a suitable climate, form of bath, or health-resort. It will be willingly conceded that a great deal can be accomplished by "natural" methods of treatment in a certain group of cases in which the never so skilfully combined drugs of the Pharmacopeia may prove entirely futile; but, as with drugs, the choice must be judicious and dictated by the requirements of the individual case. Dr. Linn has essayed a rather difficult task, which, however, he has performed thoroughly well. After some introductory remarks as to choice of place, time of departure, preliminary treatment, length of treatment proper, and other incidentals, a classification of mineral waters is given. Then follows a therapeutic index, but the bulk of the book is devoted to descriptions of health-resorts, with details as to routes, therapeutics, springs, physicians, hotels, etc. Finally there is a directory of physicians and an alphabetic index. The book is well printed, in large type, upon good paper, and can be cordially commended to any who may be interested in the subject with which it deals.

CORRESPONDENCE.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

To the Editor of THE MEDICAL NEWS,

SIR: Attention has recently been called to the presumed lamentable condition of the *Journal of the American Medical Association*, the slim circulation and poor literary and scientific quality of which are from time to time forced into trying contrast with the success, in each way, of the *British Medical Journal*.

Those who are uninformed of the exact situation in regard to the circulation of the *Journal* cannot judge absolutely of its state in this respect; but there is a general impression that it has few subscribers outside of those who may be regarded as in a sense forced to take it, for the reason that it is sent to all members of the Association who once attend a meeting and pay the fee of membership, until they default in payment or order it stopped. But of its literary and scientific attainments all who see may judge. In this we think an unbiased opinion would be that the *Journal* has never been a success. This we believe is due to several conditions: One is that the Trustees were, for some years, so selected that they should have no will, or should exercise none, except as this coincided with the will of the first editor, and that afterward the Trustees were so chosen that a handful of them could shape the policy of the *Journal* and control its finances, and that they did this in a manner contrary to the dictates of common sense, and wholly in a way to foster sentiments of local jealousy and suspicion at the expense of the true interests of the Association and of the medical profession of the country. More than this, in our judgment the editors of the *Journal* have, without exception, allowed the pressure of what they believed was pecuniary necessity to influence them to adopt, in the conduct of the advertising and reading pages of the *Journal*, methods which such a journal should never have adopted, and which were thoroughly disapproved of by many of those who ought to have been kept in sympathy with it. Another mistake in the conduct of the *Journal* has been, we think, in selecting editors who had no close relation with the medical writers of the oldest parts of the country. It happens in the world that there is a constant tendency for scientific work, while proceeding Westward, to keep its face toward the East, where the older mediums of communication between men of science and of letters are issued, and that literary productions go naturally and easily toward those older sections, while they go with difficulty away from them. This is the case as between the two hemispheres and as between the two principal halves of this one. Now, we think the literary success of the *Journal* will never be what it ought to be until it has an editor who is a man of real literary culture, and who is in touch with the best writers in all parts of the country and the world. Such a man, backed by a high-principled business manager, ought to be able to make the *Journal* of the Association a credit to the American medical profession; and there is no use in blinking the need for them both. To do so may minister to angered *amour propre*, but it will certainly carry the *Journal* and the Association still further in the retrograde direction which it has been taking for the past ten or fifteen years. Time and renewed meetings have removed some of the special causes of divided interest which prevailed in the American Medical Association when the *Journal* was a bantling, and it is supposable that the members of the Association are more likely to be governed by judgment instead of feeling now than they were when they stood on opposite sides of an important question. Those who sincerely desire the good of the Association may now recognize each other's sincerity of motive, and get together to make the Association and its *Journal* what they ought to be—strong and prosperous. There are in the Association enough men of honest purpose to defeat the schemers who are responsible for its present condition. To these honest men the *Journal*, properly managed, would be a most important factor in bringing about what is needed; but it must set an example of strict honesty, high principle, and intelligent management to attain this object.

These comments are suggested by a hearty wish for the good of the Association and its *Journal*, and the

fact that they are permitted to appear in the columns of THE MEDICAL NEWS is an evidence of the unselfishness of its editor and publishers; for if the *Journal of the American Medical Association* were well conducted and ably managed it would be the most serious rival to other American medical journals which could be imagined.

FIDELITAS.

DR. UNNA'S PLASTER-MULLS.

To the Editor of THE MEDICAL NEWS,

SIR: Those physicians who are interested in dermatology, and are consequently familiar with the reputation and works of the eminent specialist, DR. P. G. Unna, Director of the Heilanstalt fuer Hautkranke in Hamburg, will know that a favorite form with Dr. Unna for administering medicaments is the plaster-mulls. These plaster-mulls were originated by Dr. Unna, and have been used and favorably indorsed by many physicians, including such authorities as McCall Anderson, Janowsky, Robert M. Morrison, J. C. McGuire, Edward Brock, Chotzen, Bulkley, and others.

Plaster-mulls are an ideal improvement on the ordinary spread plasters; fine gauze is covered with the thinnest possible layer of gutta-percha, on which the medicament is evenly spread, properly dissolved in a minimum quantity of vehicle or base. The gutta-percha covers the skin-surface hermetically, prevents transpiration from the pores, and thus facilitates the deeper absorption of the medicament and enhances the specific therapeutic effect of the indicated remedy. The vehicle or base employed is non-irritant and a solvent of the remedy. Of the latter, an exact amount or dosage is added, and being perfectly dissolved, every particle of the ointment-surface will act equally; in other words, the plaster-mulls offer a sort of specific medication. A chief advantage besides this exact dosage is that the plaster-mulls are so thin, elastic, and pliable that they can be closely affixed to any portion of the body without cutting or patching. No artificial heat or other manipulation is necessary for applying these plaster-mulls; simply placing them on the surface requiring treatment, and holding them there for a moment suffices to firmly attach the plaster to the skin by virtue of the body-heat.

While these plaster-mulls have come into extensive use in Europe, they have not been generally adopted in this country, principally for the reason that they have not been manufactured here, and the importation from Hamburg was connected with difficulties, loss of time, etc. Recently, however, I have been enabled to procure a limited line of the most important medications of plaster-mulls, and I take early occasion to report my favorable opinion.

The medications which I have used are as follows: Salicylic acid, each roll one meter long, by 20 c.m. (about one yard long and eight inches wide), containing 10 grams, which amounts to about one-thirtieth of a grain of salicylic acid to the square inch of plaster-mull:

Mercury, 20 gm. ($\frac{1}{15}$ gr.).

Mercury, 20 gm. ($\frac{1}{15}$ gr.); with carbolic acid 7.5 gm. ($\frac{1}{40}$ gr.). Zinc oxid, 10 gm. ($\frac{1}{30}$ gr.).

Zinc oxid, 10, gm. ($\frac{1}{30}$ gr.); with tar 5 gm. ($\frac{1}{60}$ gr.). Ichthyol, 10 gm. ($\frac{1}{30}$ gr.).

Resorcin, 15 gm. ($\frac{1}{20}$ gr.).

Salicylic acid, 10 gm. ($\frac{1}{30}$ gr.); with creosote 20 gm. ($\frac{1}{15}$ gr.). Salicylic acid, 20 gm. ($\frac{1}{15}$ gr.); with creosote 40 gm. ($\frac{2}{15}$ gr.).

I have given up ointments almost entirely. They lack the neatness, elegance and efficacy of a well-fitting plaster-mull. The general physician will find plaster-mulls of great utility.

In my own practice I am now employing these plaster-mulls wherever indicated, and it is my intention in a subsequent communication to furnish some clinical records confirming the good opinion already formed.

HORATIO R. BIGELOW, M.D.
1716 CHESTNUT ST., PHILA.

ALBUMINURIA AND GLYCOSURIA FOLLOWING A SEVERE BURN.

To the Editor of THE MEDICAL NEWS,

SIR: A rare and sad accident recently occurred here. While burning stubble in her little farm of six acres, the clothing of a negress, forty-three years old, suddenly caught on fire. No one was nigh, and, after her loud cries for help brought some friends to her aid, she was immediately taken to her log-cabin, and I was at once sent for. I got to her house ten minutes after the accident.

I carefully examined her, and found her corpulent and seemingly robust body seriously burnt. The left hand was badly scorched, the skin shrivelled, and the abductor pollicis, opponens pollicis, flexor brevis pollicis, and adductor pollicis being quite shrunken and drawn, while over the trapezium, trapezoid, os magnum, and unciform bones there was a deep burn. The right leg was not less injured, the tibialis anticus, extensor proprius pollicis, extensor longus digitorum, gastrocnemius, soleus, plantaris, popliteus, flexor longus pollicis, flexor longus digitorum, tibialis posticus, peroneus longus, and peroneus brevis being quite shrivelled and flabby.

The sternum was injured, a severe burn, about the size of a gold dollar, being on the manubrium and the xiphoid respectively. The next part of the body injured was the vulva, the hair on the mons Veneris being badly scorched, and the clitoris, meatus urinarius, and glands of Bartholin; also, on physical examination, a few moist râles were heard over both lungs. The heart-sounds were feeble, lacking volume and clearness.

The patient complained of a deep sense of weight, as though one were bearing heavily on her diaphragm. She experienced a frequent desire to micturate. I found the urine of the normal specific gravity, but containing albumin and sugar in small quantities. Speech was feeble and not well articulated. The treatment I employed was a dressing of oleum amygdali on young fig-leaves. In addition a combination of morphin with cherry-laurel water, tincture of gelseminum, and tincture of hyoscyamus was given every four hours.

The accident occurred at 11 A.M., and the patient died on the next day at 9.30 A.M.

Your obedient servant,

HENRY HARTLEY, M.D.,
Medical Mission Priest.
OGEECHEE, CHATHAM COUNTY, GA.

ANOTHER CASE OF PRECOCIOUS PREGNANCY.

To the Editor of THE MEDICAL NEWS,

SIR: In September, 1888, I was called to see a colored girl in my neighborhood who was said to be suffering

with dropsy. An examination revealed, to my astonishment, a seven months' pregnancy. This child, then several months less than thirteen years of age, was only fairly well grown for her age, and was totally undeveloped, to all appearances. There was absolutely no growth of hair upon the mons Veneris and no development of the mammary glands. I was positively assured that she had never menstruated.

On the 11th of November I attended her in confinement, and, after a comparatively easy labor, the second stage of which lasted rather less two hours, she was delivered of a vigorous female child, weighing about five and a half pounds. The action and ability of nature in moulding the head in conformity with the capacity of the pelvis was more beautifully exemplified in this case than I have ever seen it in another. The mother and child did well. The father, by the way, was a very large negro of at least fifty years of age, and the husband of a great-aunt with whom the girl lived.

Very truly yours,

R. M. SLAUGHTER, M.D.

THEOLOGICAL SEMINARY, VA.

NEWS ITEMS.

The Pan-American Medical Congress.—Program of the Section on Diseases of the Mind and Nervous System:

Formal Address, by C. H. Hughes, M.D., Executive President of the Section, St. Louis; "The Gangliated Nervous System and Some of its Diseases, by Charles K. Mills, M.D., of Philadelphia; Paper, by William A. Hammond, M.D., of Washington; "The Traumatic Psychoneurosis, Its Relations to Paranoia, Epilepsy, and Paretic Dementia," by J. G. Kiernan, M.D., of Chicago; Paper, by Theo. Diller, M.D., of Pittsburg; Paper, by E. C. Seguin, M.D., of New York; "The Urine in Sexual Neurasthenia," by Charles L. Dana, M.D., of New York; "Suppurative Meningitis and Myelitis, with Exhibition of Specimens," by Graeme M. Hammond, M.D., of New York; "The Disease of Inebriety and its Treatment," by T. D. Crothers, M.D., of Hartford, Conn.; "Chorea," by Charles Henry Brown, M.D., of New York; "Study of the Temperature in Twenty-five Cases of General Paralysis of the Insane," by Frederick Peterson, M.D., of New York; "The Present Status of Infantile Cerebral Palsies," by Frederick Peterson, M.D., of New York; "The Successful Management of Inebriety without Secrecy in Therapeutics," by C. H. Hughes, M.D., of St. Louis; "Erotopathia: Morbid Erotism, by C. H. Hughes, M.D., of St. Louis; "The Medical Treatment of Insanity," by Edward C. Mann, M.D., of Brooklyn; "Address of Welcome," (in Spanish), by William A. Hammond, M.D., of Washington; "Where the New-born Baby Learned to Suck," by C. A. F. Lindorme, M.D., of Atlanta, Ga.; "The Treatment of Nervous Diseases in Sanitariums," by James K. King, M.D., of Watkins, N. Y.; "The Influence of Alcohol upon the Human Powers and Constitution," by T. L. Wright, M.D., of Bellefontaine, O.; "The Treatment of Cerebral Hemorrhage," by D. R. Brower, M. D., of Chicago; "Neuro-Angio Paralysis and Its Relation to Paretic Dementia," by Frank C. Hoyt, M.D., of Clarinda, Ia.; Paper, by S. Weir Mitchell, M.D., of Philadelphia; Paper, by E. C. Spitzka, M.D., of New York; Paper, by O. T. Sherman, M.D., of Boston; "Civil Service in American Hospitals for the Insane," by S. V. Clevenger, M.D., of Chicago; "La Renguera," by Daniel Guiterrez Arango, M.D., of Cali, Cauca, Colombia; "Paralisis Espastica Cerebral du los Adultos," by Manuel Carmona y Valle, of City of Mexico; "On the Prognosis of 'Railway Spine,'" by F. X. Dercum, M.D., of Philadelphia; "The Nervous Symptoms of Storms," by Curran Pope, M.D., of Louisville; "A Peculiar Type of Vasomotor Neurasthenia (The Pulsating Disease), with Report of and Operation for the Same," by Charles L. Dana, M.D., of New York; "Curability of Inebriety," by J. G. Reed, M.D., of Elmwood Place, O.; "Nutrition Against Stimulation," by W. H. Maxon, M.D., of St. Louis.

The following is the program of the Section on Diseases of Children:

"The Most Successful Method of Treating Croup," by J. O'Dwyer, M.D., of New York; "The Teaching of Hygiene in Colleges and Public Schools," by F. Forchheimer, M.D., of Cincinatti; "Clinical Aspects of Infant Feeding," by E. P. Davis, M.D., of Philadelphia; "Clinical Notes of Eruptive Fevers in Southern California," by W. A. Edwards, M.D., of San Diego, Cal.; "Infant Feeding," by T. M. Rotch, M.D., of Boston; "The Time and Mode of the Introduction of the Exotic Diseases of Children into America," by J. Lewis Smith, M.D., of New York; "Physical Training of Public School Children," by J. Gardiner Smith, M.D., of New York; "Palmus," by L. C. Gray, M.D., of New York; "Enteroclysis in Intestinal Diseases of Children," by E. E. Graham, M.D., of Philadelphia; "Bacteriologic Diagnosis of Diphtheria," by H. C. Ernst, M.D., of Boston; "Aphasia in Children," by F. Peterson, M.D., of New York; "On Milk," (No definite title) by Henry D. Chapin, M.D., of New York; "The Race Factor in Gastro-intestinal Disease," by J. W. Byers, M.D., of Charlotte, N. C.; "The Treatment of Empyema in Early Life," by A. Brothers, M.D., of New York; "A Contribution to the Knowledge of Acute Primary Entero-colitis during Early Infancy," by Joaquin L. Duenas, M.D., of Havana, Cuba; Paper, by J. B. Deaver, M.D., of Philadelphia; "The Production of Cow's Milk Designed for Infant Feeding," by Henry L. Coit, M.D., of Newark, N. J.; "The Proper Mode of Preventing and Treating Diphtheria, Based on Recent Discoveries Relating to Its Etiology and Pathology," by J. Lewis Smith, M.D., of New York; "The Normal Precordia in Infancy and Childhood," by H. B. Whitney, M.D., of Denver, Col.; "Intestinal Parasites Observed on the Island of Puerto Rico," by Antonia Amadeo, M.D., of Manuabo, Puerto Rico; "Immediate Percussion Among Children," by Dr. Olinto, of Porto Algre, Brazil; "Feeding of Children in Cuba During Infancy," by Joaquin L. Duenas, of Havana, Cuba; "Pertussis as it Exists in the Rocky Mountains," by John M. Keating, M.D., of Colorado Springs, Col.; "Types of Gastro-intestinal Disease Prevalent in New York," by Floyd M. Crandall, M.D., of New York; "Insane Disorders of Childhood," by J. Madison Taylor, M.D., of Philadelphia; "Cirrhosis of the Liver in Children," by William A. Edwards, M.D., of San Diego,

Cal.; The Artificial Feeding of Children in Mexico," by J. Ramon Icasa, M.D., of City of Mexico.

Program of the Section on Military Medicine and Surgery:

"Laparotomy in Gun-shot Wounds of the Abdomen," by P. S. Conner, M.D., Cincinnati, O.; "Are Projectiles from Portable Hand Weapons Sterilized by the Act of Firing? Can a Septic Bullet Infect a Gun-shot Wound?" by Capt. Louis A. La Garde, Chicago; "The Point of Election in Amputations below the Knee, with Reference to the Serviceableness of Artificial Appliances," by Stephen Smith, M.D., New York; "The Avoidance of Intestinal Disorders in the Field," by Brevet Lt. Col. A. A. Woodhull, Surg. U. S. A., Hot Springs, Ark.; "Personal Experience in the Results of Good and Bad Sanitation in the Confederate Army," by Bedford Brown, M.D., Alexandria, Va.; "The Causes and Origin of Continued Fevers in Naval Service," by C. A. Seigfried, M.D., Surg. U. S. Navy, Newport, R. I.; "Aprestos de Campamento de uso en Cuba por los Medicos Militares," by Dr. Felix Estrada y Catoyra, Havana; Hospital Corps Drill by Detachment, under the command of Major Van R. Hoff, Surg. U. S. A.; Exhibition of a Field Hospital Complete with Equipment now in use in the U. S. Army; "First Aid to the Wounded and Transportation of the Wounded from the Battlefield and Field Hospitals;" Visit to the Army Medical Museum: (*a*) Inspection of Collection; (*b*) Inspection of Library of the Surgeon-General's Office; "Amputations Prothetically Considered," by George E. Marks, A.M., New York; "The Laws of Growth of Bacteria applied to Antiseptic Surgery," by Robert Reyburn, M.D., Washington; "Wounds of the Mannlicher Rifle in the Recent Civil War in Chile," by A. M. Fernandez Ybarra, A.B., M.D., New York.

The Cholera.—Two cases of cholera were reported in Rotterdam, on August 24th, and nine cases on August 25th. One new case and two deaths were reported on August 29th. Isolated cases were reported elsewhere in the Netherlands.

The reports concerning the progress of the disease in the infected districts of Austria and Hungary are contradictory. One death in Vienna has been reported. The infection was ascribed to drinking the unfiltered water of the Danube. One death is also reported at Althafen, a suburb of Buda-Pesth. The official returns from Galicia show that forty-two new cases and twenty-eight deaths were recorded on August 26th and 27th. On August 28th 134 new cases and 78 deaths were reported in Hungary. New cases are reported from time to time from Antwerp.

From Berlin it is reported that but for a few sporadic cases, traced to outside sources, Germany is still regarded as free from cholera. She is exposed daily, however, to dangers from her infected neighbors. On the Polish frontier danger threatens constantly. On the Austrian border the danger is fully as great, while all efforts to guard against it are likely to be rendered futile by the lying of the Hungarian authorities. The Hungarian Minister of the Interior is doing his best to obtain truthful reports from the infected districts, but he is thwarted by the local authorities. Some of the city and district officials suppress cholera news simply because they are too shiftless and ignorant to see the need of obeying the orders of the Home Office. Others do not report cases because they fear to annoy the people whose votes will be valuable at the next election. The people in most of the infected districts are reckless and illiterate. Most of them are dirty and dislike to be roused, cleansed and fumigated. The cholera spreads, therefore, almost unchecked among them, and nobody hears of it until the increasing mortality causes a panic.

Dr. Dunbar, Director of the Hygienic Institute in Hamburg, has tested seventy-seven samples of water from the Elbe and its affluents since July 19th. He has found bacteria in twenty samples, but in no case the genuine bacilli of Asiatic cholera.

There were eight deaths from cholera in Naples, on August 26th. It is reported that nineteen cases of cholera and five deaths have occurred at Palermo. On August 29th Naples was declared free from cholera. One case of cholera and two deaths were reported at Salerno, and three deaths at Cassino.

During the week ending August 26th, the following reports were received from the Russian provinces: Orel, 820 cases and 325 deaths; Tula, 653 new cases and 139 deaths; Kieff, 678 new cases and 227 deaths; Kazan, 230 cases and 88 deaths; Jaroslav, 193 new cases and 79 deaths; Don, 163 new cases and 113 deaths; Samara, 177 new cases and 68 deaths; Veronesh, 172 new cases and 88 deaths; Mohileff, 135 new cases and 48 deaths; Poltava, 134 new cases and 64 deaths; Kuban, 110 new cases and 93 deaths; Taurida, 115 new cases and 43 deaths; Grodno, 114 new cases and 34 deaths; Moscow, 110 new cases and 40 deaths; Ekaterinoslav, 79 new cases and 38 deaths; Minsk, 97 new cases and 49 deaths; Kharkoff, 99 new cases and 63 deaths; Kherson, 83 new cases and 20 deaths; Tchernigoff, 49 new cases and 19 deaths; Viatka, 64 new cases and 30 deaths; Simbirsk, 50 new cases and 23 deaths.

There are known to have been nine cholera suspects in St. Petersburg during the preceding week. In Kertch, in the Crimea, there were 44 new cases and 24 deaths. In Sebastopol the new cases numbered 9 and the deaths 6 in the last week.

From Paris it is cabled that a suspicious malady, supposed to be cholera, has broken out at Nantes, from which many persons are suffering.

Anton Weichselbaum has been unanimously elected as the successor of Kundrat, recently deceased, in the chair of pathologic anatomy, at Vienna. There seems no doubt that the election will be confirmed by the Minister of Education. Weichselbaum, who is forty-nine years old and since 1885 has been Professor Extraordinary of Pathologic Anatomy, has already gained distinction as a pathologist and bacteriologist.

Dr. Edmund Neisser has been appointed Professor of Special Medical Pathology and Therapeutics and Director of the Second Medical Clinic, at Vienna, to fill the vacancy created by the death of Otto Kahler.

Professor Hayem has resigned the Chair of Therapeutics at Paris to accept that of Clinical Medicine, recently rendered vacant by the death of Professor Peter.